



**SELECTIONS FROM THE RECORDS OF THE BOMBAY  
GOVERNMENT.**

**No. XXX.—NEW SERIES.**

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**I.**

**CORRESPONDENCE**

**EXHIBITING THE NATURE AND USE OF**

**THE POONA DUFTUR,**

**AND THE MEASURES ADOPTED FOR ITS PRESERVATION  
AND ARRANGEMENT SINCE THE INTRODUCTION  
OF BRITISH RULE.**

**II.**

**A SELECTION OF PAPERS**

**EXPLANATORY OF THE ORIGIN OF**

**THE INAM COMMISSION,**

**AND OF ITS PROGRESS, FROM ITS EXPERIMENTAL OR-  
GANISATION IN A. D. 1843 IN ONE DISTRICT OF THE  
DHARWAR COLLECTORATE, UNTIL EXTENDED TO  
THE WHOLE OF THE SOUTHERN MURATHA COUNTRY,  
THE DECCAN, AND KHANDEISH, AND CONSTITUTED  
A JUDICIAL TRIBUNAL BY ACT XI. OF 1852.**

**COMPRISING, ALSO,**

**CORRESPONDENCE RELATING TO ALIENATED LAND  
REVENUE GENERALLY THROUGHOUT THE  
BOMBAY PRESIDENCY.**

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## THE POONA DUFTUR.

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THE Hoozoor Duftur is the record of the transactions of Government, as registered by the Government officers. In it were kept all accounts of the receipt and expenditure of the revenues of the State, whether the realizations from the provinces or from whatever source; the expense of troops, establishments, Inams, and every species of grant, gift, and money transaction, whatever; excepting only the private affairs of the prince, or such accounts as it suited not the interest of individuals in power to leave on record.

The Duftur was kept very complete till the time of Bajee Rao, whose arbitrary and capricious Government found little advantage in keeping a correct record of its proceedings; and besides, in the farming system which he adopted, the advantage of registering the acts of the revenue servants of Government was in a great measure lost, as it existed under former Peshwas. It was a very extensive establishment, consisting of about 200 Karkoons, and divided into several departments, for the various branches of business: the whole was under the Hoozoor Furnavees, and was generally distinguished into Chalté Duftur, and Ek Berij Duftur, besides the Potnuvees Duftur, treasury, and other departments, not immediately connected with revenue accounts.

The establishment of the Chalté Duftur was always the Furnavees, for the transaction of current business; that of the Ek Berij Duftur was always at Poona, it being more particularly for the arrangement, registry, and deposit of accounts.

The business of the Chalté Duftur was distributed amongst the different branches, as the Fur, Behera, Surinjam, &c.

The Fur was the immediate office of the Furnavees, from whence were issued all grants, Sunuds, and orders; and to which were rendered all accounts required for the information of the Furnavees from the other departments. Here all accounts were examined and passed by the Furnavees; and day-books or journals (Rozkirds) were kept of all transactions that occurred,—of all sums paid or received; of all grants or appointments made or resumed.

The Behera department received the accounts from the districts, which were made up into official forms, for the inspection of the Furnavees, as Tallebunds, Azmaish, Behera, &c. The Tallebund was a complete abstract of the actual receipt and expenditure of the revenues for the past year: from it was framed

the Azmaish, or estimate for the next, or current year. • This was a rough estimate compared with the Bohera, which was a corrected statement of all known receipts, and of all fixed authorised expenditure, and formed the basis of collection for the current year.

The Surinjam department was charged with the accounts of all Surinjams, Inams, &c ; in short all Doomalla whatever.

Besides these, were the departments of accounts generally (Aisal), of military expenses and contributions (Warce), and such like. These arrangements, however, varied with the pleasure of the Fumavees, or the business that might occur.

In the Ek Benj Duftur at Poona were received, arranged, and deposited, all accounts from the other departments, and from them were framed abstracts of the total receipts, expenditures, and balances of Government, on all accounts, for the year (called Turjuma), also Khutawnees, which are abstracts of all kinds of expenditure, arranged alphabetically under their proper heads, in the manner of a ledger ; and, in short, the whole of the revenue and financial transactions of the State were registered and arranged, and their accounts deposited in this office.

The general contents of the Duftur under the Peshwas may be described as follows ; viz. all accounts rendered to the Government of the revenue and expenditure of the districts, with the settlements of them by Government ; the accounts of districts rendered by the hereditary district officers ; and those of villages by the village officers of farms, of customs, &c. ; accounts of all alienations of the public revenue, whether Surinjam, Inam, or otherwise ; of the pay, rights, and privileges of the Government and village officers ; accounts of the strength and pay of troops, and the expenses of all civil, military, and religious establishments. In the Rozkirds were registers of all revenue transactions generally, together with all grants and payments, and more particularly the accounts of all contributions and exactions levied on foreign States ; the whole of which were considered and exhibited in one comprehensive view in the Turjummas. The records, however, were probably not complete to the extent described. It is said that Nana Fumavees introduced the greatest improvements into the Duftur, as he did in the transactions of accounts in general ; and during his administration, viz. from about 1765 (with the exception of a few years) up to 1796, it was kept with much regularity. From the accession of Bajee Rao, the regular receipts and deposit of accounts in the Duftur was not only much neglected, but its establishment was almost entirely done away, and people were even permitted to carry away the records, or to do with them what they pleased. The Duftur was in consequence much mutilated, and thrown into great confusion.

After the occupation of Poona in November 1817, the records were found in different places, in a state of the utmost disorder ; but, considering all circumstances, tolerably complete for a period of eighty-eight years ; that is from 1130 (ai) A. D. 1729 inclusive, up to the breaking out of the war, with the

exception of a blank of about seven years, viz. from 1157 (1757 A. D.) to 1163 (1763 A. D.) inclusive, of which most of the records were burnt when Poona was taken by Moguls ; for the twenty-seven years preceeding this blank, the Duftur is moderately perfect, and for the thirty-two succeeding years, up to 1179 (1796 A. D.), the accession of Bajee Rao, the records are nearly complete, particularly from 1774, when Nana Furnavees came into full power ; but during the reign of Bajee Rao, the last twenty-one years, they are by no means full.

It is doubtful how far the accounts in the Duftur may be depended upon, as true and candid statements ; it is probable that they were often manufactured to answer the purpose of individuals : a very remarkable degree, however, of consistency and relative accuracy is to be found in the accounts, for many years, such as must have required no small industry to effect, and the more ability if the statements are actually false.

Since the foundation of the Duftur establishment, under the Commission, the Duftur has been completely examined and arranged into separate districts, and mostly also into Purgunas, and its arrangement by years also is in considerable progress. Full and complete statements of all allowances, as Surinjam (Fonz and Zat), Tynat, and such like, have been made out, and also lists of all Inams, Dewusthans, and Suwusthans, Dhurmadaus, Kitta, Wurshasuns, Nemnooks, Rozeenadars, Khyrats, allowances to Peers and Fakeers and Mosques, Balpurwurshee, Maaf, Bukshish, Dehengee, Mezwance, garden and Sunudee lands, Wutun lands of Zemindars and for the Deccan, Carnatic, and Khandeish, and the Peshwa's provinces in the Nizam's Country, which have also been translated, and forwarded in Murathee and English to the Collectors. Similar lists of the Konkun and Guzerat are in progress ; the Dufturs of the Konkun for the last ten years have been sent to Bombay. Abstracts of the produce, deductions, and net revenue of the whole country during the last year of Bajee Rao have been framed by districts, Purgunas, and Mahals, and in more than half the country by separate villages. For the purpose of authenticating the above lists, each item has been compared with the accounts of the two different periods, viz. the latest in the Duftur, from whence it was taken, and another of from fifteen to twenty years preceeding ; and very often three or four different periods of accounts have been compared. The accurate correspondence which has been observed among them is very remarkable. In many cases, the particular dates and circumstances of the original grants have been examined, and with a view to the final and ready adjustment of any disputed title, and to ensure immediate reference, an extract has been made from the Duftur, particularly the Rozkirds, of the date and authority of all grants whatever, and of all forfeitures or restorations of grants, from the beginning of the Duftur to the year 1776, and is now in progress towards the present time. It is arranged alphabetically by the names of grantees, like Native Khutawnee, containing, under each the date, circumstances and particulars of all Sunuds, grants, or allowances, that were made, resumed, or restored by Government. This has been a work of much labour,



but, when finished, will form a table of authentic reference, by which any question or doubt, which may at a future time arise, can at once be settled.

Besides the records immediately connected with revenue, from which much matter still remains to be extracted, the Duftur contains many materials of curious general information. Thus, the series of accounts of the districts and villages afford a view of the comparative state of cultivation and improvement, and assessment of the country at different times. Those of the armies and establishments, and particularly the Rozkirds, show the progress of the Muratha conquests and dominion, and the most important acts and events of their Government; and the Turjumas furnish complete statements of their general wealth and resources.

*Poona, 15th September 1819.*

(Signed) J. MACLEOD.

NO. 94 OF 1826.

POLITICAL DEPARTMENT.

TO W. NEWNHAM, Esq.,

Chief Secretary to Government, Bombay.

SIR,—I do myself the honour to submit, for the consideration of Government, a Memorandum respecting the Poona Duftur.

I have the honour to be, &c.

(Signed) W. CHAPLIN,  
Commissioner in the Deccan.

*Commissioner's Office, Bombay, 9th May 1826.*

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*Memorandum respecting the Poona Duftur, by Mr. Chaplin.*

The utility and value of the Duftur of the Peshwa, for reference on a great variety of subjects connected with the territory of the Bombay Government, render it necessary to consider on what footing it shall hereafter be maintained, on the abolition of the Commissioner's Office in the Deccan. These records are now well arranged, and little difficulty is experienced in finding whatever documents are lodged in them. It is of much importance that they should continue to be kept entire, and that the Native Dufturdar in the immediate charge of them should be a person of integrity, with an establishment under him of an efficient description. Adverting, however, to the heavy responsibility of the charge, and to the facility with which it might be abused, if not

closely superintended, I consider it of equal importance that a gentleman of the Civil Service should be placed at the head of it, on a respectable salary, which ought not, I think, to be less than that of a Sub-Collector, or Rs. 1,400 per mensem. The duties which will devolve on the Native officers of the Duftur establishment will be detailed in the sequel. In addition to what will fall to the share of the gentleman superintending it, he might, if it were deemed expedient, be appointed a Sub-Secretary to Government, and be charged with that part of the correspondence which relates more particularly to the Deccan, and which, when the Commission ceases, will entail a great addition of business in the Secretariat Department.

The duties of the Native Dufturdar might, if it were considered desirable, be more or less extended to all the Collectorates of the Presidency, besides those of the Deccan. Dufturdars, or, as they are perhaps more properly called, Surishtadars, are thus employed at Madras, under the orders of the Board of Revenue, and are found a very useful and excellent check upon the Native servants in the fiscal department in the districts.

As there is no Board of Revenue at Bombay, the duties of such a Native Kutcheree might be discharged under the immediate orders of Government, through such channel as might be thought most appropriate.

The province of the Head Surishtadar would be to inspect the Jummahundee statements, accounts of the *survey measurement* and the *assessment* proposed to be fixed on the *fields*, the demand, collection, balance, and other statements received from each district, and submit such remarks and suggestions as might occur to him, to the Superintendent of the Duftur, for the information of Government; or he might be called on to read over such statements, if required, to the Honorable the Governor, or any of the Members of the Council Board.

The Naib or Deputy should review the whole of the accounts furnished by each district, and notice all such points as may be therein liable to objection, to the Head Surishtadar.

The Goomashtas should prepare a corresponding copy in Murathee of the English abstract statements submitted monthly to Government, transcribe accounts according to forms given to them by the Head Surishtadar, keep a register of all accounts received, and lodge them in the records.

Besides his general duties, the Surishtadar, with a part of his establishment, might accompany the Superintendent of the Records, who might attend the Governor when making tours of inspection in the districts.

It would be the duty of the Head Surishtadar to explain, when required, the annual accounts that are received from each Collectorate, of the villages or Umuls held in Jageer, and the particular causes of increase and decrease that may have occurred.

To examine, when required, the accounts of the late Government, with a view to ascertain any disputed points relative to the Jageers of the Putwurdhuns and others, the partition of them amongst heirs, &c., and to prepare any Sunuds for such persons that yet remain to be issued.

To prepare all Sunuds for the petty Inamdars and Jagoedars when necessary, also Sunuds for pensions and Nemnooks, according to former usage in the Duftur, when such allowances may be sanctioned to descendants on the death of present incumbents. To perform the same duty in respect to Inams, Dewusthan allowances, &c., which can only be accurately done after reference to the records.

To procure, when requisite, information from the same archives, relative to the possessions in our territory belonging to Sindia, Holkar, the Rajas of Berar and Sattara, the Suwusthans formerly held in Hindoostan, as well as those of Angria, the Siddee Chief of Dunda Rajpooree, the Gaekwar, treaties of the former Government, &c. &c.

To ascertain any data required relative to the Chouth assignments to the Peshwa by the Nizam, now restored to the latter, but charged with certain payments to individuals, confirmed by our Government, but which are often interrupted by the Nizam's officers, and form, in consequence, a subject of frequent complaint, requiring reference to the Duftur, and eventually to the Resident at Hyderabad.

To furnish, under special orders in each case of application by individuals, copies of proofs and Sunuds of possession, which are only to be found in the Duftur.\*

There are, besides, various other subjects of reference to the Duftur connected with the proceedings of the late Government, which impose a heavy duty on the Dufturdar's establishment.

Such are the more prominent functions to be performed by the Surishtadar and his establishment. They are evidently much heavier, and of a more responsible nature, than those of the Surishtadar at Madras. They will also be more difficult, because in the Deccan (if not elsewhere on this side of India) the Native functionaries, and perhaps the European, are unused to the more regular and methodical forms of revenue business long since observed in the Madras provinces, and by means of which alone the Government can be thoroughly informed of the state of distant districts.

I have omitted to state that at present complaints of all sorts come in from the districts. Many of the complainants have their petitions endorsed, referring them to the Collectors, to whom they have not before applied; others that, having been referred, remain unsettled, and require further investigation in the Duftur previously to passing a decision or calling for a further report on them from the Collectors. These investigations furnish much employment for the Head Surishtadar, who reports the result of his inquiries to the Commissioner. They are a great check on the diligence and accuracy of the inquiries not only of the Collector's Native servants, but of the Collector himself, and they have often led to a correction of erroneous decisions. Such inquiries into complaints, it is presumed, will still be necessary, and they might be conducted through the

\* This is a daily subject of reference, and a fee might with propriety be levied from such applicants, for the trouble thus imposed on the public officers for their private benefit.

agency of the gentleman superintending the Duftur, who might report the result direct for the decision of Government. It may, however, be apprehended that this check will lose somewhat of its force and efficiency on the abolition of the Commission, if the Duftur be removed to Bombay, where, owing to the distance, the access of complainants must be so much more difficult than when the Commission was at Poona.

Mr. John Warden, my present Head Assistant, is now so conversant with the affairs of the Duftur, and with revenue business in general, and possesses so much ability, assiduity, conciliatory temper, and knowledge of the Native languages and customs, besides an acquaintance with all that has passed for some years in the Commissioner's Office, that he seems peculiarly fitted for its superintendence, and I cannot too strongly recommend him to the notice of Government.

If an Assistant in it be for any time wanted, as will probably be the case till Mr. Steele can be more suitably provided for, that gentleman's talents, industry, and other qualifications render him eminently suited for the situation.

The present Surishtadar or Dufturdar, Keshorow, is perfectly qualified, in my opinion, for that office, and ought to be confirmed in it. He is practically versed in all revenue subjects, from having risen to his present situation after passing with great credit through every grade of the Revenue Department under the best Native masters of Sir T. Munro's school, in which, from being originally a Goomashta or Karkoon, he was successively promoted to the offices of Talooka Surishtadar, Mamlutdar, Hoozoor Cash-keeper, Hoozoor Secretary, and lastly Dufturdar, the highest post to which a Native can aspire in our Service.

The annexed is about the scale for the Dufturdar's establishment, which I should consider necessary :—

|   | Monthly.  | Annually. |
|---|-----------|-----------|
| Chief Native Dufturdar .....                            | Rs. 800   | 9,600     |
| Naib or Deputy .....                                    | 200       | 2,400     |
| Two Goomashtas at Rs. 150 each .....                    | 300       | 3,600     |
| One ditto at Rs. 100 each .....                         | 100       | 1,200     |
| Seven ditto at Rs. 60 each .....                        | 420       | 5,040     |
| Two Guzerathee, Canarese, and Tulingee, at Rs. 50 each. | 100       | 1,200     |
| Eight Peons, including Dufturbund and Musalchee, &c.    | 64        | 768       |
|   | <hr/>     | <hr/>     |
|   | Rs. 1,984 | 23,808    |

The present establishment connected immediately with

the Duftur is ..... Rs. 1,756 21,072

To the above should be added three English writers, who will be required by the European Superintendent. Annaba, Mr. Francis Rouget, and Sudanund, should for the present be retained. The former is acquainted with every part of the English records, and is a very useful man; the second is a European clerk, writes English grammatically, is master of Hindustanee, well

versed in other Native languages, and is a good translator and examiner. He is also used to make out revenue statements from the Murathee language.\* Suddanund is one of the most expeditious and accurate copyists I know.

I subjoin a list of statements that ought, in my opinion, to be furnished to the Superintendent of the Duftur from each Collectorate, in order that Government may be kept completely informed of the interior revenue administration of the provinces.

(Signed) W. CHAPLIN,  
Commissioner.

No. 693 OF 1826.

TO THE COMMISSIONER IN THE DECCAN.

SIR,—I have had the honour to receive and lay before the Honorable the Governor in Council your letter dated the 9th instant, and I am directed to acquaint you that he has been pleased to adopt the plan suggested by you for the charge of the Poona Duftur after the Commission shall have closed.

A copy of your letter, with its accompanying plan, has been transferred to the Revenue Department, whence the orders regarding the details will be issued.

I have the honour to be, &c.

(Signed) W. NEWNHAM,  
Chief Secretary to Government.

*Bombay Castle, 19th May 1826.*

No. 204 OF 1835.

POLITICAL DEPARTMENT.

TO THE CHIEF SECRETARY TO GOVERNMENT, Bombay.

SIR,—Upon the acquisition of these territories by the British Government, the Commissioner for settling the affairs thereof appointed an officer, with establishment commensurate with the magnitude, intricacy, and delicacy of the duty, to collate and arrange the whole of the Muratha archives. The work was, I believe, performed in a very efficient manner, and the whole Department of the records, as well as those of the Commission, was placed under the charge of the Agent, by whom they are still kept in the palace in the town of Poona, known by the denomination of “Nana Furnavees’s Wara.”

2. This mass of papers amounts to nearly 3,500 bullock-loads. The records are frequently referred to by the officers on points requiring elucidation in the public administration, and I also very often receive applications from private individuals for copies of documents of titles to land, and other rights,

\* Mr. Rouget might be very useful in the Office of the Persian Secretary.

in consequence of the loss of these instruments during disturbances under former Governments, depredations, and other similar causes.

3. These considerations render it highly necessary that the integrity of the public records should be preserved with every possible care; and this observation, I believe, receives enhanced force from a consideration of the form of the Native records. This is not, as generally under the British Government, in books, but in loose papers, which must greatly facilitate any fraudulent act of fabrication.

4. Hitherto the records have been kept under the general care of the Agent's Sheristedar, but under, I think, an undue degree of responsibility; and this the more especially when it is considered that the palace, the deposit of these archives, is situated in the heart of the town, about a mile from the Agent's Office. The Sheristedar, therefore, or a Karkoon, has to proceed that distance whenever reference is required to be made to the records. Hence a considerable loss of time, besides the other evils of a separation of this kind.

5. Under these circumstances, I would beg to submit to the Right Honorable the Governor in Council a consideration of the propriety of such precaution as shall effectually guard against the probable consequences to which I have alluded.

6. Should Government concur in the view which I have taken of the great importance of this subject, and consider it necessary to give effect to a plan for ensuring the object, I would beg to suggest the appointment of a Keeper of the Records, on a salary of Rs. 100 per month, with a Karkoon at Rs. 30, and two Peons at Rs. 6 each, making together the monthly expense of Rs. 142, a sum which, I would submit, would be amply compensated by the realization of the object in contemplation, if my view of the subject be correct.

I have the honour to be, &c.

(Signed) S. MARRIOTT,

*Poona, Agent's Office, 4th June 1835.*

Agent.

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No. 1041 OF 1835.

POLITICAL DEPARTMENT.

TO THE AGENT FOR SIRDARS.

SIR,—I am directed by the Right Honorable the Governor in Council to acknowledge the receipt of your predecessor's letter dated the 4th June, No. 204 of 1835, suggesting the adoption of precautionary measures for the better security of the Muratha archives contained in the Poona Dufur.

2. In reply, I am instructed to state that Government is fully sensible of the urgent necessity which exists for placing the Dufur under a more effectual superintendence than has yet been exercised over it, and also for adopting

measures for identifying the various papers of which it consists, and for the observance of due precaution in granting papers from the Duftur, in order to prevent those frauds which may be at present so easily committed against Government.

3. With these objects in view, the Right Honorable the Governor in Council is pleased to resolve that the superintendence of the Duftur shall be vested in a body of the most respectable Native residents in Poona, in whom the whole responsibility will centre, under the arrangements subsequently detailed, which you will be pleased to carry into effect.

4. The persons whom Government is pleased to nominate as the Members of this Committee are Ballajee Punt Nuthoo, Ramchunder Pandoorung Dhunduree, the Native Judge, the Revenue Commissioner's Dufturdar, and the Dufturdar of the Principal Collector of Poona; they are to be styled "Amanutdars of the Poona Duftur." Ballajee Punt Nuthoo is to be the chief Superintendent, and as such he is to be designated "Prudhan Amanutdar."

5. While the appointments of these individuals cannot but prove gratifying to their feelings, as giving them an additional weight and importance in the eyes of the Native community, the Governor in Council conceives that he has every reason to expect that they will be faithful to their trust, sensible, as they must be, alike of the honour conferred upon them, and of the hold Government has over them, in the pensions and grants which they now enjoy from its liberality.

6. The Superintendents are to be allowed to entertain two Karkoons of their own selection, one receiving Rs. 50, and another Rs. 20 per mensem.

7. None of the Native servants connected with the Agent's Office, or with the establishment of the Judge and Session Judge, should have anything to do with the Duftur; and the Karkoons belonging to the Agent's Office, now employed in the Duftur, should be discharged, if they are not positively required in that Office still.

8. The Governor in Council is pleased to appoint you to be the channel of communication between the Government and the Superintendents, and requests that every opportunity be taken by you to uphold and support the Amanutdars: the same conduct will also be required of the Principal Collector of Poona, to whom a copy of this letter will be forwarded.

9. The key of the Duftur will remain with the chief Superintendent, and, when the apartments are opened, one or more of the other Superintendents will always attend.

10. The first step which the Amanutdars should take should be to cause a register, in the Murathee language, to be made of all the papers in the Duftur.

11. A stamp, bearing the inscription of "Poona Duftur," in Roman characters, and the Honorable Company's arms, will, I am directed to signify to you, be made at the Mint, and furnished to you for the use of the Amanutdars; and the Right Honorable the Governor in Council is pleased to direct that, within as short a period as may be conveniently practicable, the register

mentioned in the preceding paragraph, and all the papers of the Duftur, be stamped, so as to prevent the subsequent interpolation or insertion of any document not really belonging to the Duftur.

12. The process of stamping will be carried on in the presence of two of the Amanutdars, and they will attend on such days, and at such hours, for this purpose, as may best suit their convenience. They will be allowed to employ as many additional Karkoons as they may find necessary in the prosecution of this work, upon the sanction of Government previously obtained through you.

13. All applications for copies of papers must, the Governor in Council directs, be in the first instance made to you as Agent, when, should you admit them, you will, by a Yad to the Superintendents, request that the copies required may be furnished. This should be done in the presence of two of the Amanutdars, and one of them should authenticate the copies.

14. You will further prescribe rules for the general conduct of business under the Amanutdars, whose duty it will be to bring to your notice all instances of suspected interpolation which may be found in the Duftur; and the Right Honorable the Governor in Council desires me to signify to you that it should be observed as a standing rule, that no person unconnected with the Office is to be allowed to make any search in the Duftur, or in any way have access to the records.

I have the honour to be, &c.

(Signed) C. NORRIS,  
Chief Secretary to Government.

*Bombay Castle, 4th September 1835.*

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No. 350 OF 1835.

POLITICAL DEPARTMENT.

To the CHIEF SECRETARY TO GOVERNMENT, Bombay.

SIR,—In reference to your letter No. 1041, dated the 4th ultimo, I have the honour to submit, for the consideration and orders of the Right Honorable the Governor in Council, the accompanying translation of a Murathee memorandum, delivered to me by the Amanutdars of the Poona Duftur, relating to the adoption of precautionary measures for the better security of the Muratha records deposited in Nana Furnavees's palace.

The records alluded to in the 7th and 9th paragraphs of the Amanutdars' report should, I am of opinion, remain under the immediate charge of the Agent, as heretofore, as he has to refer to them very frequently for information at the requisition of Government, and the several Collectors, respecting Inams, Jageers, charitable allowances, Wutuns, and other points connected with the arrangements made by the Commissioner.



The expense for carrying the orders of Government into execution, for the present, is estimated by the Amanutdars at Rs. 2,604 per annum; in addition to which they require, as a permanent charge, one Amuldar, four Peons, a Sweeper, and contingent allowance, including the Rs. 70 already sanctioned by Government, which, according to the abstract indicated below, increases the amount requiring sanction to Rs. 3,924.

|   |           |
|---|-----------|
| Temporary charges, as per Amanutdars' report.....                                       | Rs. 2,604 |
| Two Karkoons sanctioned by Government, at Rs. 70 per mensem.                            | 840       |
| One Amuldar at Rs. 6 per mensem, four Peons at Rs. 5, and<br>one Sweeper at Rs. 4 ..... | 360       |
| Contingent allowance at Rs. 10 per mensem .....   | 120       |
| <hr/>   |           |
| Total.....  | Rs. 3,924 |

As proposed in the 6th paragraph of the report, the Karkoon now in charge of the Duftur can remain, and may be ultimately transferred; his salary is Rs. 40 a month. There are no Peons attached to the Duftur, but which is guarded by a detail of four Sebundee Peons from the Poona Police Corps.

I have honour to be, &c.

(Signed) A. BELL,  
Agent.

Poona, Agent's Office, 9th October 1835.

*Translation of a Report made to the Agent by the Amanutdars of the Peshwa's Duftur, dated the 23rd September 1835.*

In conformity with the instructions conveyed in your letter of the 18th instant, we beg to make the following report on the present state of the Muratha Archives deposited in Nana Furnavees's palace:—

1. On our going to the palace, and overlooking the Duftur, we find the whole of the records are without a register. Some of the papers have lists, but in an imperfect and incomplete state, and some have none at all. There are others lying in great heaps, in a state of disarrangement and confusion.

2. On inquiring from the Sheristedar of the Agent's Court whether the whole of the papers were complete according to the lists, he replied that some of the papers were formerly stolen, for which the Karkoons and Jasoods were imprisoned, and that others were forwarded to the Konkun, consequently leaving the remainder incomplete according to the lists. We therefore beg to state that it is impossible to specify what number of papers are now deficient, or what remain, without first examining and comparing them thoroughly with the existing lists.

3. The Agent's Sheristedar further informed us that the Duftur was not placed under the superintendence of one person, but has been under five or six successive persons, who never handed the records over to one another

specially, by exchanging regular receipts to that effect. Moreover, the same mode of management is still pursued. It therefore appears very doubtful whether the records will be found correct according to the original list.

4. The Government letter directs that a Murathee general register of the whole of the Duftur be first made. We, however, beg to state, that if the old register be revised and altered, it will be of no utility whatever, and the formation of new lists appears to us both necessary and advisable.

5. As this process will take up much time, we would recommend that two separate padlocks be placed on the large door of the palace until such time as the register is completed, one of them to remain in possession of the Sheristedar of the Agent's Court, and the other with us; because the responsibility of the Duftur will remain with the Sheristedar until the conclusion of the register, towards which the most unremitting exertions are required. And respecting the instructions laid down in the Murathee translation of the Government letter, for the daily opening of the padlocks, and attendance, we beg to state that the persons nominated to the superintendence of the Duftur will find it inconvenient to attend daily during the preparation of the register: we therefore beg to propose that one of the two Karkoons authorised by Government to be employed be entrusted with the key of the Duftur palace door till the lists are prepared; so when there are two padlocks thus made use of, it will be the means of preventing any interpolation or other abuse from creeping in.

6. In the management of the locks, it is necessary that a Karkoon of the Agent's Kutcheree should always attend till the completion of the register. The Karkoon who is at present in the Duftur will have to remain there, but in the event of his being prevented from attending at any time, from unforeseen causes, we beg to propose that another Karkoon from the Agent's Kutcheree be ordered to attend, that the prosecution of the work be not impeded, and the employment of Karkoons idly suspended.

7. The first apartment of the Duftur palace is occupied with the Murathee records of the Agent's Court, and on inquiring of their nature from the Agent's Sheristedar, he informed us "that they were abstracts of the Peshwa's Duftur, taken during the administration of the late Commissioner, together with the revenue accounts, &c. collected after the accession of the British Government, from the various Mamlutdars throughout the Deccan." We therefore beg to be informed whether they are to be assigned over to us or not.

8. The motives which induced Government to adopt these arrangements for the special care of the Muratha archives are, we believe, for their better security and management, and the supply of authentic information and proofs, and also for the prevention of interpolation. With these views we would beg that the whole of the papers that were extracted from the Peshwa's Duftur, and the other records, should remain with the Duftur, as they will prove useful to us for reference and comparison with the old records, &c. when any information would be required therefrom.

9. We beg also to state that there are other separate Roomals of papers, unconnected with the Peshwa's Duftur, being records of revenue survey proceedings, and we would wish to be informed under whose charge they are to remain.

10. After having completed the register, and other minor lists of the contents of the whole of the Roomals of the Muratha archives, we will then make a report of the manner in which the loose and unpacked heaps of other papers are to be disposed of.

11. The following are the average monthly expenses necessary to be incurred at present for the additional Karkoons, &c. required for the framing of a register and inferior lists :—

|                                       |         |
|---------------------------------------|---------|
| To fifteen Karkoons, per mensem ..... | Rs. 195 |
| Namely—                               |         |
| To two Karkoons at Rs. 20 each .....  | Rs. 40  |
| To five ditto at Rs. 15 ditto .....   | 75      |
| To eight ditto at Rs. 10 ditto .....  | 80      |
|                                       | <hr/>   |
|                                       | Rs. 195 |
| To two Carriers at Rs. 5 each .....   | Rs. 10  |
| For ink and paper, &c.....            | 12      |
|                                       |         |
| Total....                             | Rs. 217 |

The above sum will be required monthly, till such time as the work is completed ; but we cannot definitely state the length of time required for that purpose ; and we therefore only now propose the average expenses for one year at Rs. 2,604. We shall hereafter be able to judge what quantity of work will remain unfinished, and make a report accordingly.

12. We beg to state that, according to the Government instructions, two Karkoons will be employed.

13. For the security of the Dufturs, it is requisite that some persons should permanently be nominated, whom we beg to propose as follows, viz :—

1st.—Four Sepoys and one Amuldar for guarding the Duftur. These five persons must be active and trustworthy : as the Agent's Sheristedar has stated that some of the records were formerly stolen, it is therefore necessary that a guard and other necessary precautions should exist for their safe custody.

2nd.—One Khamattee or Sweeper is also necessary, for cleaning and cow-dunging the palace.

3rd.—Also a monthly sum for contingencies, &c.

The arrangements should be effected according to the suggestions in the above three articles, excluding those already effected.

The above are our sentiments upon the subject of compiling a register, and arranging and preserving the Duftur.

Those respecting the rules to be applied, alluded to in your former letter, we will give in a separate Yad. After receiving your answer the padlocks will be put on, and the compilation of the register and other lists will be commenced upon.

(Signed) BALLAJEE NARAYEN NUTHOO.  
 „ RAMCHUNDER PANDOURUNG DHEWDHUR *alias* DHUNDUREE.  
 „ MORO TRIMBUK, Native Judge.  
 „ NURSOO LUXIMON, Dufturdar to the Revenue Commissioner.  
 „ VEESAJEE GOPALL, Dufturdar of Principal Collector, Poona.

(True translation)

(Signed) A. BELL,  
 Agent.

No. 122 OF 1835.

POLITICAL DEPARTMENT.

To the AGENT FOR SIRDARS.

SIR,—I am directed to acknowledge the receipt of your letter dated the 9th instant, to the address of the Chief Secretary to Government, submitting translation of a Memorandum by the Amanutdars of the Poona Duftur relative to the measures to be adopted for the better security of those records; and, in reply, to convey to you the following instructions and observations on the subject.

2. The Right Honorable the Governor requests you will inform the Amanutdars that their suggestions, evincing, as they do, a determination to discharge their important trust in an independant and effectual manner, are very creditable to them; and that while their report affords evidence of the irregularities, confusion, and corruption which have characterised the past management of the Duftur, the Right Honorable the Governor sees in that document grounds to anticipate much benefit from the superintendence of the Amanutdars.

3. It is stated in the 2nd paragraph of their Memorandum that the Agent's Sheristedar has informed them "that some of the papers were formerly stolen"; and in the 3rd paragraph that the "Duftur was not placed under the superintendence of one person, but has been under five or six successive persons, who never" gave receipts on taking charge. With reference to this, you will be pleased to inform the Amanutdars that when they discover frauds, it will be their duty to investigate them thoroughly; and if they discover the perpetrators, to report them to the Magistrate, who will deal with them according to the Regulations. The Collectors will be instructed to assist them in obtaining the attendance of witnesses, and in other matters requisite to the trial.

4. The expense of the extra establishment required by the Amanutdars

|  |         |
|--|---------|
| One Amuldar at Rs. 6<br>per mensem, four Peons at<br>Rs. 5, and one Sweeper at<br>Rs. 4..... | Rs. 360 |
| Contingent Al-<br>lowance at Rs. 10<br>per mensem.....                                       | 120     |
| Total....  | Rs. 480 |

appears to be over-estimated in the 3rd paragraph of your letter; for the two last charges noted in the margin it will not, it is presumed, be necessary to incur. All that the Amanutdars apply for is a guard, sweeper, and a contingent allowance, and these wants must be supplied under the new arrangement, as they have been hitherto. The new establishment will expend more paper, pens, ink, and other stationery than has hitherto been usual, but that expense is provided for in the statement inserted in the 11th paragraph of the Memorandum.

5. The whole additional expense, therefore, which the suggestions of the Amanutdars will entail, seems to be that on account of a temporary establishment required to arrange and register the papers, amounting, inclusive of an allowance for stationery, as per statement in paragraph 11, to Rs. 217 per mensem; which expense the Right Honorable the Governor is pleased to sanction for one year, at the expiration of which period you will be pleased to call upon the Amanutdars to report the progress made in the work in question, for the information of Government.

6. Adverting to the 2nd paragraph of your letter, I am desired to acquaint you that the papers therein alluded to should remain under the special charge of the Amanutdars, the security of those papers being one of the chief objects of their appointment. When the Agent, Judge, or any other public officer may require the use of them, he should forward a list of them to the Amanutdars, who will then furnish them, receiving a receipt for the same.

7. As it appears that the Amanutdars have delayed taking charge pending the receipt of a reply to their reference, I am desired by the Right Honorable the Governor to request that the Poona Duftur be made over to them without further loss of time.

I have the honour to be, &c.

(Signed) W. H. WATHEN,  
Chief Secretary to Government.

*Dapoorce, 26th October 1835.*

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No. 116 OF 1836.

POLITICAL DEPARTMENT.

To the ACTING SECRETARY WITH THE RIGHT HON. THE GOVERNOR,  
Poona.

SIR,—In reference to a letter from the Secretary with the Right Honorable the Governor, No. 122, dated the 26th of October 1835, I have the honour to submit, for the information of the Right Honorable the Governor, the accompanying translation of a Murathee Memorandum, received from the

Amanutdars of the Poona Duftur, reporting the progress made in registering and arranging the Muratha archives, and stating that the completion of the work will require five years in addition to the one already sanctioned by Government.

2. I beg to state that the establishment sanctioned by Government is Rs. 287 per mensem, besides the pay of a Karkoon deputed from the Agent's Office, to assist the Amanutdars, at Rs. 40, causing a monthly expenditure of Rs. 327, which, in the course of six years, will amount to Rs. 23,544 ; and as the advantages to be derived from the arrangement are, in my opinion, in no way commensurate with the expense of keeping up the present establishment, it becomes, consequently, a question for the Government to decide how far it will be expedient to continue it.

3. I am not aware that any valuable information can now be furnished from the old archives, as I have every reason to believe that all the valuable and useful papers have long since been abstracted ; and as these old archives can now be of little use in the management of the country, I venture to recommend that they may be locked up, and the key kept with the Agent, who can either personally attend, or depute some trustworthy person, to open the Duftur whenever a copy of any paper may be required.

4. In conclusion, I beg to add that I consider the continuance of the establishment a useless expenditure of money.

I have the honour to be, &c.

(Signed) A. BELL,

Poona, Agent's Office, 1st August 1836.

Agent.

*Translation of a Yad from the Amanutdars of the Poona Duftur, dated the 11th July 1836.*

1. We beg to acknowledge the receipt of your letter of the 6th June last, calling for a report of the progress made in registering and arranging the Muratha Dufturs from the commencement up to the present date, and further, directing us to report monthly on the work done.

2. We again received another communication from you on the 4th instant, requesting to be early informed as to the quantity of work done, and what time would be necessary to complete the whole work.

3. We therefore now, in reply, beg to state that 1,905 Roomals or bundles of papers, containing the accounts and disbursements of both the Poona and Ahmednuggur Collectorates, have been registered and arranged, which took about eight months to complete. On examining the records, some of them appear in such a state of disarrangement and confusion as to require to be regularly and alphabetically arranged. There are certain papers deficient in some of the bundles ; and it takes much time to search the whole of them minutely.

We beg to notice that 13,000 Roomals or bundles of papers remain now to be registered, and that, according to the state of the work already done, we believe it will take five years more to complete the task. Should you, however, think it only necessary to register such papers as are indispensably necessary for the public use, and merely to arrange the remainder, it will even in that case alone require two years. Formerly, in our Yad of the 23rd September 1835, we stated "that we would, after a period of one year, be able definitely to state what time would be actually necessary to complete the work, and that we would accordingly make a report"; and as we were going to do so shortly, we in the mean time received your two aforesaid letters; we have, therefore, roughly computed the above time.

(Signed) BALLAJEE NARAYEN NUTHOO.  
 „ RAMCHUNDER PANDOURUNG DIHUNDUREE.  
 „ MORO TRIMBUK, Native Judge.  
 „ NURSOO LUXIMON, Dufturdar to the Revenue Commissioner.  
 „ VEESAJEE GOPAL, Dufturdar to the Principal Collr. Poona.

(True translation)

(Signed) A. BELL,  
 Agent.

No. 1665 of 1836.

POLITICAL DEPARTMENT.

To the REVENUE COMMISSIONER.

SIR,—I am directed by the Right Honorable the Governor in Council to refer, for your opinion and report, the accompanying copies of a letter from the Agent for Sirdars in the Deccan, dated the 1st ultimo, and of its enclosure, regarding the progress made in registering and arranging the Muratha archives contained in the Poona Duftur, and the establishment and time required for completing the same.

I have the honour to be, &c.

(Signed) J. P. WILLOUGHBY,  
 Secretary to Government.

*Bombay Castle, 6th September 1836.*

No. 2580 of 1836.

POLITICAL DEPARTMENT.

To J. P. WILLOUGHBY, Esq.,  
 Secretary to Government, Bombay.

SIR,—I have the honour to acknowledge the receipt of your letter of the 6th September last, referring, for my opinion and report, a copy of a letter from

the Agent for Sirdars in the Deccan, regarding the progress made in registering and arranging the Muratha archives contained in the Poona Duftur, and the establishment and time required for completing the same.

2. I beg respectfully to state that I am of opinion that the arrangement of the records should continue, for the substantial reasons which induced Government to undertake it, and that it would be bad policy to take the charge of the Duftur out of the hands of the Amanutdars.

3. From the estimate the Agent has given in his 2nd paragraph, I would deduct Rs. 70, since that is the expense of the permanent establishment of the Duftur. This reduces the temporary extra charge to Rs. 217. The services of the Karkoon mentioned in the Agent's 2nd paragraph might now, I am informed, be easily dispensed with.

4. Government will perceive, from the Amanutdars' Yad, that they undertake "to register such papers as are indispensably necessary for the public use" in two years,—a proposal which, I think, should be accepted.

5. The value of these records is considerable. They contain registers of the Sunuds, and evidence of the possession of persons holding Inam lands, Wurshasuns, Dhurmadeo allowances, &c. which would be of essential use were Government to institute an investigation into the rights of persons enjoying those possessions; and that such investigation is highly desirable there can be no doubt.

6. If Government had a competent officer available to inquire into the titles of persons holding rent-free lands and enjoying possessions, &c. I verily believe that many titles would be found invalid, and that the result would be of considerable advantage to the public revenue.

7. To protect Government's interests in these matters is one of a Collector's duties, but the Deccan and Konkun Collectors are, as Government is fully aware, so overwhelmed with other duties, which cannot be postponed, that it is quite hopeless to expect that such extensive examinations can be conducted by them in the minute, regular, and careful manner requisite.

I have the honour to be, &c.

(Signed) T. WILLIAMSON,  
Revenue Commissioner.

*Rev. Commr.'s Office, Punowla, 9th December 1836.*

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No. 108 OF 1837.

POLITICAL DEPARTMENT.

TO THE AGENT FOR SIRDARS IN THE DECCAN.

SIR,—In acknowledging the receipt of your letter of the 1st August last, with translation of a Yad from the Amanutdars of the Poona Duftur, reporting the progress made in registering and arranging the Muratha archives (entrusted to them for that purpose), and the establishment and time required for completing



the same, I am directed to inform you that the Right Honorable the Governor in Council deems it inexpedient to comply with your recommendation for the immediate discontinuance of the arrangement of these records.

2. Adverting, however, to the 2nd paragraph of your letter regarding the expenses on account of the Duftur establishment, I am directed to observe that the sum of Rs. 70, being the expense of the permanent establishment of the Duftur, should be deducted, and the temporary extra charge is thus reduced to Rs. 217 per mensem. The Governor in Council is also of opinion that the services of the Karkoon, deputed from the Agent's Office to assist the Amanutdars, at Rs. 40 per mensem, may at once be dispensed with.

3. In the 3rd paragraph of the Yad, the Amanutdars undertake "to register such papers as are indispensably necessary for the public use" in two years, and the Governor in Council is pleased to accept this offer.

I have the honour to be, &c.

(Signed) J. P. WILLOUGHBY,  
Secretary to Government.

*Bombay Castle, 28th January 1837.*

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No. 109 of 1837.

POLITICAL DEPARTMENT.

To the REVENUE COMMISSIONER.

SIR,—I am directed to acknowledge the receipt of your letter dated the 9th of December last, regarding the Poona Duftur, and to transmit for your information the annexed copy of my communication of this date to the Agent for Sirdars, on the same subject.

I have the honour to be, &c.

(Signed) J. P. WILLOUGHBY,  
Secretary to Government.

*Bombay Castle, 28th January 1837.*

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No. 10 of 1837.

POLITICAL DEPARTMENT.

To the SECRETARY TO GOVERNMENT, Bombay.

SIR,—The period sanctioned by Government for the establishment of the Poona Duftur having expired, the Principal Collector of Poona, consequently, objects to the payment of the abstract for November last. I have, therefore, the honour to request, should Government not feel disposed to accede to the propositions contained in my letter No. 216, dated the 1st of August last, to the address of the Secretary with the Right Honorable the Governor in the Deccan, that the Principal Collector at this Station may be authorised to con-

tinue paying the Duftur establishment for such period as Government may think necessary.

In conclusion, I beg to represent that the advantages to be derived from keeping up the Duftur under the Amanutdars are, in my opinion, in no way commensurate with the expense.

I have the honour to be, &c.

(Signed) A. BELL,  
Agent.

*Poona, Agent's Office, 19th January 1837.*

No. 344 OF 1837.

POLITICAL DEPARTMENT.

TO the AGENT FOR SIRDARS IN THE DECCAN.

SIR,—In reply to your letter dated the 19th January last, I am directed by the Right Honorable the Governor in Council to refer you to my communication of the 28th of that month, sanctioning the continuance of the Poona Duftur establishment for a further period of two years, and to inform you that the departments concerned have been this day advised accordingly.

I have the honour to be, &c.

(Signed) J. F. WILLOUGHBY,  
Secretary to Government.

*Bombay Castle, 3rd March 1837.*

No. 38 OF 1837.

POLITICAL DEPARTMENT.

TO the SECRETARY TO GOVERNMENT, Bombay.

SIR,—Having communicated to the Amanutdars of the Poona Duftur the instructions of Government conveyed in your letter No. 108, dated the 28th of last month, I have the honour to submit, for the orders of the Right Honorable the Governor in Council, the accompanying translation of a Memorandum from three of the Amanutdars (the other two being absent), assigning reasons for not reducing the permanent establishment, and dispensing with the services of the Karkoon deputed from the Agent's Office.

I have the honour to be, &c.

(Signed) A. BELL,  
Agent.

*Poona, Agent's Office, 28th February 1837.*

*Translation of a Memorandum presented by the Amanutdars of the Poona  
Duftur, dated the 23rd February 1837.*

We beg to acknowledge the receipt of your memorandum of the 1st instant, stating "that our Yad of the 11th July 1836 was translated and submitted to Government, and that an answer thereto, under date the 28th January last, had been received, with instructions that the expense of the permanent establishment of the Duftur, Rs. 70 per mensem, be dispensed with, by dismissing the two Karkoons, namely Bhiccajee Rughoonath and Krishnaje Chintamun Gorey; and further, that the Karkoon deputed from the Agent's Kutcheree be remanded back to the Agent's Office, and that the remaining amount of the temporary establishment, Rs. 217, would be continued, according to our proposal, for the space of two years more, for the purpose of registering such papers as are indispensably necessary for the public use."

2. We therefore beg in reply to state, that previously to our entering upon this task, we submitted our Memorandum of the 23rd September 1835 to Government. In the 5th paragraph thereof we have stated our opinion as to the manner in which matters should be conducted until the completion of the work. This suggestion was approved of by Government, as communicated to us in a letter dated the 27th October 1835. The work has accordingly since been carried on. At present we are ordered to discharge the two Karkoons. We therefore beg to state that it is customary, for the purpose of registering the Muratha archives, that the papers should be taken out and the register made. It is also necessary, with a view to the vigilant and unremitting performance of the duties connected with the registry, that there should be some one to superintend and look after the records; for without the adoption of this precaution it is impossible that the records can remain safe,—no confidence can be placed in the individuals composing the temporary establishment. The Amanutdars, moreover, cannot always, but according to their convenience, visit the Dufturkhana; it is impossible that they can daily attend to the superintendence of the work. It appears, however, very doubtful to us, should the aforesaid two persons, who have become intimately acquainted with both the duties and the records, be discharged, that the objects and intentions of Government will ever be realized, notwithstanding the expense. We have, therefore, thought it imperative on us to communicate our sentiments to Government, and shall, until the receipt of a reply, take the liberty to allow affairs to continue in their former state; because, should the persons in question be dismissed, it is impossible that the business can be carried on in an efficient manner, and everything will be at a stand.

3. Should the Government, however, be determined to dismiss the two Karkoons, we would, in that case, beg that it will be pleased to make arrangements regarding the appointment of another trustworthy person to superintend the work daily, and he will be held responsible for any fraud or other impropriety in the work. We have already assigned our reasons above for not

having dismissed the two aforesaid Karkoons or dispensing with the services of the Karkoon belonging to the Agent's Court, and therefore entreat that this may be taken into consideration, and that we may be favoured with an immediate reply.

(Signed) BALLAJEE NARAYEN NUTHOO.  
 „ RAMCHUNDER PANDOURUNG DHUNDUREE.  
 „ MORO TRIMBUK, Principal Sudder Ameen.

(True translation)

(Signed) A. BELL,  
 Agent.

No. 573 OF 1837.

POLITICAL DEPARTMENT.

To the AGENT FOR SIRDARS IN THE DECCAN.

SIR,—I am directed to acknowledge the receipt of your letter dated the 28th ultimo, forwarding a translated Memorandum from three of the Amanutdars engaged in arranging the Muratha archives contained in the Poona Duffur, requesting that their establishment may not be reduced.

2. In reply, I am desired to inform you that the Right Honorable the Governor in Council has no objection to the two Karkoons, whose pay amounts to the sum of Rs. 70 per mensem, being retained, but the one deputed from your Office must be dispensed with, agreeably to the instructions conveyed in the 2nd paragraph of my letter dated the 28th January last, since Government are of opinion that the two Karkoons above alluded to, in conjunction with the establishment comprised in the allowance of Rs. 217 per mensem, are sufficient for the duties required.

I have the honour to be, &c.

(Signed) J. P. WILLOUGHBY,  
 Secretary to Government.

*Bombay Castle, 31st March 1837.*

No. 290 OF 1838.

POLITICAL DEPARTMENT.

To the SECRETARY TO GOVERNMENT, Bombay.

SIR,—I have the honour to submit, for the final decision of the Honorable the Governor in Council, the accompanying translation of a Murathee Memorandum from four of the Amanutdars of the Poona Duffur (the Pradhan Amanutdar has been absent at Sattara for the last twenty months), reporting the progress made in registering and arranging the Muratha archives, and begging that the present establishment may be continued for one year, or at least six

months, for the completion of registering such papers as are indispensably necessary for the public use, beyond the period allowed in Mr. Secretary Willoughby's letter to the Agent, No. 108, dated the 28th January 1837.

2. As it is stated in the same letter that it would be inexpedient to comply with Mr. Bell's recommendation for the immediate discontinuance of the arrangement of these records, I beg leave to suggest, should the Honorable Board still deem it necessary to keep up the establishment, that the proposition contained in the Amanutdars' report may be sanctioned.

I have the honour to be, &c.

(Signed) P. W. LEGEYNT,  
Acting Agent.

*Agent's Office, Poona, 7th November 1838.*

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*Translation of a Yad from the Amanutdars of the Poona Duftur, dated the 21st October 1838.*

Having been ordered to arrange and register the Muratha archives of the late Government, as deposited in the Wara of Nana Furnavees, we beg to report as follows:—

1. That we submitted a Yad on the 11th July 1836 (No. 31), reporting that the records consisted of about 13,000 Roomals, and that a period of five years was necessary to complete a regular index, or one year for registering such papers as are indispensably required for the public service, and arranging the others. Subsequently, we represented that a further period of two years, in addition to the former one, appeared to be necessary for the task in question, and received in reply two letters, one dated 1st February and the other 11th of April last, sanctioning the time required by us. We have, therefore, agreeably to the instructions conveyed therein, commenced upon the said work.

2. That we stated in our Yad (No 31) that it took us a period of about eight months to register 1,905 Roomals, besides which we have during the last twenty-seven months registered 5,807 Roomals, making in all 7,712 Roomals, and arranged 900 Roomals of the Soobahs of Sattara, Hindoostan, &c., which, we believe, will be registered by the 14th of November next, being within the time allowed us by the Sirkar. The following, however, is a detail of the quantity of work performed by us, viz:—

*Roomals registered.*

|   |       |
|---|-------|
| Roomals of Surinjams .....                            | 14    |
| Roomals of Keird, or receipts and disbursements ..... | 716   |
| Roomals of the Khandesh Collectorate .....            | 204   |
| Roomals of the Collectirates of the Konkun .....      | 2,547 |
| Roomals of Bhedeachee Khutawnee .....                 | 83    |
| Roomals of Ajmaish (estimate).....                    | 169   |

|  |       |
|--|-------|
| Roomals of the Poona Collectorate .....  | 634   |
| Roomals of the Soobah Mooghlaee .....  | 91    |
| Roomals of Turjuma, or abstract of total receipts, expenditures,<br>and balances ..... | 54    |
| Roomals of Dewusthans .....  | 15    |
| Roomals of the Ahmednuggur Collectorate.....   | 413   |
| Roomals of the Soobah Kurnatik.....  | 329   |
| Roomals of Gudnea .....  | 2,443 |

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Total Number of Roomals.. 7,712

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*Roomals arranged.*

|   |     |
|---|-----|
| Roomals of the late Commissioner .....        | 162 |
| Roomals of the Soobah Hindoostan.....         | 207 |
| Roomals of the Sattara Collectorate.....      | 367 |
| Roomals of the Guzerat Collectrates .....     | 93  |
| Roomals of Bapoo Gokla's administration ..... | 71  |

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Total..... 900

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3. There are about 5,000 Roomals yet to be arranged and registered, which will require a further extension of time. Most of the important Roomals have been registered; but as we cannot judge, by looking at the Roomals, as to what information they contain, we beg to state that, unless they be opened and minutely inspected, we shall not be enabled to register them in regular order. We formerly guessed the shortest probable time which might be required by us for the said work, but upon opening the Roomals, and arranging them alphabetically, we found the papers in great disorder and confusion, so that after we had registered papers belonging to one department, we found papers pertaining to the same department among Roomals of another description. We also found papers and Roomals among a heap of loose papers near the records, and while we were employed in separating and arranging these, the time allowed us by the Siikar wholly expired. We therefore beg to state that it will further occupy a period of one year to finish the work; but should the Government not deem it necessary to make a complete register of the remaining Roomals, we beg to state that it would take us at least six months to register those which will be required for the public service, and to arrange the rest, as we have found about 400 Roomals and bundles of loose papers belonging to the departments which we registered, and which now require to be arranged in their proper places; besides which we beg to state there are about 600 other Roomals, containing documents of useful reference, which will make in all about 1,000 Roomals to be arranged and registered. We therefore beg to state that four months at the least will be necessary for registering them, and two months for arranging the other Roomals, making a period of six months absolutely requisite for

completing the work in question. We beg to state that if those necessary arrangements be not made, great uncertainty must prevail upon any reference being hereafter made to those records.

4. We therefore beg that the circumstances detailed above may be taken into consideration, and orders issued for an extension of the term, in order to complete the work. Besides the Roomals mentioned above, there are a few rooms full of loose papers, but as great difficulty and inconvenience will be experienced in arranging and registering them, we have kept them apart for the present. We therefore beg to suggest the propriety of first inspecting the Roomals, and afterwards registering such as may be required for the public use, and arranging the others, as stated in the 3rd paragraph of this Yad.

In conclusion, we beg to state that we have only mentioned these circumstances for the information of Government, and shall therefore await its orders upon the subject.

(Signed) RAMCHUNDER PANDOURUNG DEODHUR *oorf* DHUNDUREE.  
 „ MORO TRIMBUK, Principal Sudder Ameen of Poona.  
 „ NURSOO LUXIMON, Dufturdar of the Revenue Commissioner.  
 „ VEESAJEE GOPAL, Dufturdar of Poona.

(True translation)

(Signed) P. W. LEGEYT,  
 Acting Agent.

No. 7 OF 1839.

\* POLITICAL DEPARTMENT.

To the AGENT FOR SIRDARS IN THE DECCAN.

SIR,—I am directed by the Honorable the Governor in Council to acknowledge the receipt of Mr. LeGeyt's letter, dated the 7th November last, No. 290, forwarding translation of a Memorandum from four of the Amanutdars of the Poona Duftur, dated the 21st October last, reporting the progress made in registering and arranging the Muratha archives, and requesting that the present establishment may be continued for a further period of one year to finish the whole work, or at least six months to complete the registry of such papers as are indispensably necessary for the public use, beyond the time specified in the Government letter dated the 28th January 1837.

2. In reply, I am desired to express to you the extreme regret of Government on learning that an extension of time beyond that already sanctioned is considered necessary for this purpose; but as the Governor in Council considers the work one of great importance, he is pleased to sanction the continuance of the establishment until the 1st of June next, when it should be discharged.

3. You will be pleased to inform the Amanutdars that Government fully rely on their best exertions to secure that the work is completed by the above date.

4. As it now seems desirable to consider in what way the Duftur can best be taken care of, after it has been completely arranged, I am directed to inform you that the Honorable the Governor in Council is pleased to appoint a Committee, to be composed of the Collector of Poona and yourself, for the purpose of reporting on this subject.

5. It appears to the Governor in Council also desirable that, with a view to prevent frauds, a complete copy of the registry should be prepared, and that the same having been stamped, and authenticated by the Committee, should be forwarded to Government for deposit at the Presidency. The Committee's opinion on this point should, in the first instance, be submitted to Government.

I have the honour to be, &c.

(Signed) J. P. WILLOUGHBY,  
Secretary to Government.

*Bombay Castle, 3rd January 1839.*

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No. 177 of 1841.

POLITICAL DEPARTMENT.

To the SECRETARY TO GOVERNMENT, Bombay.

SIR,—I have the honour to acknowledge the receipt of your letter No. 7, dated 3rd January 1839, appointing a Committee, consisting of the officers noted in the margin, to report upon the best way in which the Poona Duftur can hereafter be managed.

The Agent, for Sirdars,  
and the Principal Collector  
of Poona.

2. In accordance with those instructions, Mr. Frere, the then First Assistant Collector in charge of the Zilla of Poona, and myself met, and, in conjunction with such of the Amanutdars as were present, had an inspection of the Duftur records, papers, &c., and our report, dated the 1st June 1839, is herewith forwarded.

3. Before offering any remarks respecting the Committee's report, I beg leave to refer to the previous correspondence which has taken place respecting the Poona Duftur.

4. On the 4th September 1835, the Government appointed certain respectable individuals, to be denominated Amanutdars, who were to cause a register to be made in the Murathee language of all the papers in the Duftur (paragraph 10), which were to be stamped by a seal, to be made at the Mint (paragraph 11), in presence of two of the Amanutdars, and other rules and instructions were issued to them for their guidance.

5. Under date the 3rd August 1836, the late Agent reported to Government that the Amanutdars would require a period of five years to register and arrange all the Muratha archives; but those functionaries stated in their Memorandum, translation of which accompanied Mr. Bell's letter, that they would complete the registry of all the papers indispensably necessary for



the public use in two years, which offer the Government accepted (Government letter of the 28th January 1837, paragraph 3).

6. Under date the 7th of November 1838, the Acting Agent forwarded translation of another Memorandum from the Amanutdars, soliciting a further period of six months to complete the register of such papers as are indispensably necessary for the public service, which application was granted by Government (Government letter No. 7, dated 3rd January 1839), who then ordered the Committee alluded to in the 1st paragraph of this letter.

7. After the Committee had completed their report, it struck me that the measures proposed to be adopted might cause so much inconvenience to the Government, that I determined not to send in the report till I could have practical experience how the Duftur worked, as neither Mr. Frere nor myself had any previous knowledge about it, and till I could submit such a plan to Government as would save expense.

8. In the mean time the Government, under date the 19th June 1839, forwarded, for my opinion and report, copies of correspondence they had with the Revenue Commissioner respecting the transfer of the Zhurtees belonging to the Rutnagherry Zilla from the Poona Duftur to the Collector, on which I had the honour to report, objecting to the arrangement, for reasons recorded (vide Agent's letter, 30th December 1839); but the reasons and objections urged were overruled by Government, and it was finally determined (11th January 1840) that all the Zhurtees, amounting to the large number of 1,875 Roomals, should be sent to the different Collectors, and the Amanutdars were ordered to prepare them accordingly.

9. The old Karkoons, therefore, on the establishment, (viz. one Karkoon on Rs. 50, and another on Rs. 20,) which Government had ordered to be reduced, were absolutely necessary to be retained, as without them the Amanutdars could not make that separation and division, from other papers, of the Zhurtees for each Zilla; whilst the establishment submitted with my letter No. 167, dated 8th instant (Territorial Department), was necessary to prepare the Ferisht of the documents, amounting in all to about 1,875 Roomals, and was utterly useless for taking out the Zhurtees, which none but those who had experience in the Duftur could do.

10. The Ferishts of the Zhurtees were not completed till the 8th instant, as reported in my letter to Government above alluded to, and, therefore, the services of these old Karkoons could not be dispensed with till that date; and under the orders of Government, No. 1069, dated 1st April last, to forward the Taleebunds to the Collector of Rutnagherry, they will be required for the same period as the extra Karkoons required for making registers of the Taleebunds, for which I have applied under date the 8th instant.

11. Whilst these Karkoons were employed on the duty above detailed, they were also engaged in preparing answers to the references from the different Collectors, and making copies of papers applied for by various authorities, which, from the accompanying statement No. 1, the Government will see have been considerable; and under all these circumstances, I trust the

Government will sanction the payment of this establishment, amounting, from 1st June 1839, when they were nominally discharged, to the end of June 1841, to Rs. 1,727-10-8, as per statement No. 2 annexed.

12. These Karkoons have received their pay to the end of April last, though the amount has not been entered in the Government accounts.

13. Experience, since the Committee's report was written in the Agent's Department, has convinced me that there is no absolute necessity for an European officer to revise what has been done, as suggested by the Committee (5th paragraph of the report). That portion of the Duftur which has been arranged is sufficiently well done for all public purposes, and I can see no absolute necessity for increasing the expense which it would cost Government to appoint a qualified person, independent of the inconvenience which the public service would be put to by the withdrawal of such an officer as would be competent for the duty.

14. With respect to the disposal of the old papers alluded to in the 2nd, 3rd, and 4th paragraphs of the Committee's report, I have on various occasions, when I visited the Duftur, taken up some of the papers; they did not appear to be of any consequence. I have also consulted with such of the Amanutdars as were present, who seem to be of opinion that these old papers were mere rubbish, but that they could not say, without a minute examination of them, whether or not any of them were valuable.

15. The Committee have observed, in reference to these papers, "that amongst such a mass of papers the probability is some must be of value" (paragraph 3), and that until all the "valuable documents" have been arranged, and the fragments destroyed, the arrangement of the Duftur cannot be considered complete (paragraph 4).

16. The question for decision is whether, with the chance of obtaining a few valuable documents, it is worth the expense which must be incurred to put together and arrange all the fragments scattered in different rooms, and often in small bits.

17. The Peshwa's Duftur during the reign of Bajee Rao was originally kept in the Sunwar Palace, but when the palace was set on fire during that prince's sovereignty, the Duftur papers were removed by order of Chinto Punt Deshmook to the houses of Govind Rao Kalley, and Babjee Naik Baramutkur, where they remained, without much order or arrangement, till the commencement of the British rule. They were then, by order of the Honorable Mr. Elphinstone, sent to the Khasgeewala's house, and subsequently removed to Nana Furnavees's palace, where they now are. At that time, the Honorable Mr. Elphinstone had the Duftur examined, and what papers were of public use arranged, and the rest put into rooms; and these papers, together with the records brought at a subsequent period from Trimbukjee Denglia's and Bapoo Gokla's houses, are there now, in the rooms alluded to by the Committee in the 2nd paragraph of their report.

18. It is just possible that the establishment above alluded to, as having been appointed by the Honorable Mr. Elphinstone to arrange the Duftur

papers, may have overlooked some papers of importance, though it is not, I think, very likely: at all events, if there <sup>were</sup> any papers of value, it is not improbable they may have been long since abstracted. It is also just possible there may be some documents of importance amongst the papers brought from Trimbukjee Denglia's and Bapoo Gokla's houses, though, considering the situations these Sirdars held under the Peshwa, it is not likely that they kept any accounts likely to be very useful to the British Government.

19. Forming a judgment, therefore, on such verbal information as I have been able to gain, and considering the labour and expense of putting these fragments together, and the great doubts whether, when put together, any documents will be discovered which will be useful to Government, or commensurate with the expense to be incurred, I am now of opinion that the fragments should either be burnt or sold.

20. If the latter plan were adopted, and which I beg leave to recommend, the papers would probably fetch about Rs. 800 or Rs. 1,000. It would be desirable to entertain a few Karkoons to look at the papers, as they are taken out of the rooms, and before being made over to the purchasers, in case there should be any amongst them which it might be desirable to retain, and in case any fragments may have the signature of Nana Furnavees or any other officer, which might hereafter be pasted to other papers, and made use of for fraudulent purposes. The money realized by the sale of useless fragments would no doubt fully cover the expense of the establishment required, and leave a little for the benefit of Government.

21. Since the Committee finished their report, the Government have ordered all the Zhurtees belonging to the different Zillas to be transferred to the respective Collectors, and subsequently the Government have directed the Taleebunds of the Rutnagherry Zilla to be transferred to the Collector of that Zilla; and as soon as I have received certain information from the Amanutdars, I propose recommending to Government that, as they have ordered the Taleebunds of one Zilla to be taken from the Peshwa's Duftur, the Taleebunds of all the other Zillas should also be sent to the respective Collectors. If this arrangement is sanctioned, it will reduce the number of Roomals in the Duftur as follows :—

|   |             |
|---|-------------|
| Number of records in the Duftur, as shown in the 6th paragraph of the Committee's report.....   | 14,661      |
| <i>Deduct</i> number of Roomals of Zhurtees transferred by order of Government to the different Collectors.....                               | 1,875       |
| <i>Deduct</i> probable number of Roomals containing Taleebunds, which will be recommended to be transferred to the different Collectors ..... | 1,000       |
|   | <hr/> 2,875 |

Number of Roomals which will remain in the Poona Duftur..... 11,786

22. The Committee, in the 7th paragraph of their report, have recommended the transfer of the records to the different authorities to whose Zillas they may refer; and considering that the Government have subsequently to that report ordered the Zhurtees and Taleebunds of one Zilla to be made over to the Collector, I think, whatever objections there might have been originally to the Committee's suggestion, that under the present state of the Poona Duftur it should now be at once adopted.

23. In the event of Government not concurring in the suggestion of the Committee to send the records from Poona, the Government will observe that the Committee have recommended an establishment of Rs. 110 per mensem for looking after the records. There must be an establishment to answer all the references made by the several Collectors, if the records are to be kept at Poona, and after having had some experience in the Agent's Office, I am of opinion that the establishment need not be quite so large as that recommended, but it should not be less than two Karkoons.

24. It now remains to consider the best way of supplying the establishment, without putting Government to any expense. I find, on referring to the records, that the Native establishment of the Agent was originally intended for the Agent's Department and the Duftur, and in my opinion the Karkoons in the Agent's Department, drawing the salaries mentioned in the margin,

|                     |    |   |   |   |
|---------------------|----|---|---|---|
| One Karkoon . . Rs. | 38 | 8 | 0 | might be transferred to the Duftur from 1st July next, without much inconvenience to the Agent's Department, and the Furash and contingent expenses can be paid from the Agent's contingent allowances. |
| One     "     "     | 19 | 8 | 0 |   |
| Total . . Rs.       | 58 | 0 | 0 |   |

25. Should, therefore, Government determine to keep the Duftur still under the Agent, and not remove the records to the different departments to which they belong, the Government will, by adopting the suggestion in the preceding paragraph, incur no expense whatever, and the Duftur can remain as heretofore under the Amanutdars, who have hitherto so well conducted their duties, as recorded by the Committee in the concluding paragraph of their report, or under the immediate charge of the Agent, whichever Government may think most expedient.

26. I have now to apologise for not sending in the report of the Committee before this date; but a desire to supply Government with information founded on experience, and to save Government from the expense which the Committee contemplated would be necessary, have been my motives for delaying the transmission of the document.

I have the honour to be, &c.

(Signed) R. MILLS,  
Agent.

*Agent's Office, Poona, 11th June 1841.*

*Report of the Committee.*

1. The Committee in the first instance visited Nana Furnavees's Palace, where the Duftur is kept, and found the records, as far as the arrangement of them had gone, well arranged and in good order, the several documents relating to the several districts which formed the dominions of the Peshwa being kept separate. These are, again, arranged according to the nature of their contents and the years to which they refer, and tied up in separate bundles, numbered with the general contents marked upon the outside of each. The number referred to the general register, in which the contents of each bundle were entered at length, and from trials made by the Committee, they found the arrangement to be good, and the documents easy of access.

2. In addition to the documents so arranged, there are seven or eight rooms nearly filled with papers laid in a heap upon the floor, which the Amanutdars stated were papers of no importance, or else fragments of documents which could not be arranged. The Committee examined some of these, and although they are at present in a state of confusion, yet care and trouble would probably restore many useful documents to a perfect state, and all others should be destroyed.

3. One of the largest of these rooms contained papers brought from Trimbukjee Denglia's, and, among such a mass of papers, the probability is that some must be of value, though many of them probably are only, as some of them appeared, scraps of paper upon which some of the Karkoons and others have been working sums.

4. The Committee are, however, decidedly of opinion, that until all the valuable documents have been arranged, and the useless fragments destroyed, the arrangement of the Duftur cannot be considered complete; and consequently, that in order to render the heavy expense which has already been incurred of any real substantial use, a further outlay is necessary for its completion, as, so long as the papers continue in their present state, documents cannot be said not to be in the Poona Duftur which are not among those arranged, as it may always be urged that they are among those now mouldering in confused heaps.

5. In conversing with the Amanutdars upon this point, they appeared to contemplate a further period of two years as the length of time it would require thoroughly to examine these papers and arrange them, and that the effect would probably be to increase the Duftur to about one half more. Whether the Honorable the Governor in Council considers that the object to be gained, by thus completing what has cost already so much, is worth the outlay, the Committee cannot presume to predict. Their own opinion, however, is, that the expense ought to be incurred; and as the most efficient, and at the same time, in the end, least expensive arrangement, they would suggest that some European well acquainted with the Murathee language should be appointed to revise all that has been done, and examine and arrange those documents which

have been thrown aside by the Amanutdars. This plan would likewise be the most expeditious, as he would be able to devote his whole time during the whole day to this one subject, whereas the Amanutdars, in making their arrangements, are obliged to consult the convenience of at least two individuals, who have either official duties or their own private affairs to attend to.

6. The next subject for consideration is how the records are to be ultimately disposed of, if Government is determined to incur no further expense in arranging them. The records at present arranged, amounting as

|  |  |
|--|--|
| <p>8,229 bundles or Roomals,<br/>in which every pa-<br/>per in each bun-<br/>dle has been re-<br/>gistered.</p> <p>6,432 bundles or Roomals,<br/>the papers in<br/>which have not<br/>been separately<br/>registered.</p> <hr/> <p>14,661 Total.</p> | <p>per margin, must nevertheless be preserved, and for this purpose an outlay of about Rs. 1,039 must be incurred, as per estimate submitted, in making shelves alone upon which to arrange them. A further ex-<br/>pense should, in the opinion of the Committee, be incurred in knocking down small partition walls and filling up doorways, so as to throw what are now large rooms with small closets off them into single large rooms with not more than three doors; the record rooms would then consist of large spacious</p> |
|--|--|

rooms, secured with padlocks on each door, instead of, as at present, several rooms of various sizes, with so many doors that any attempt at securing them must be impossible. An arrangement of the above nature would render the Poona Duftur very complete.

7. A suggestion, however, has occurred to the Committee for disposing of the records in a far less expensive, but in their opinion not less useful or efficient manner. They would recommend that, upon the Duftur being completed, the whole of the records belonging to each separate division of the Peshwa's dominions, which now form Collectorates of the British Government, should be made over to the Collector of the Zilla to which they refer, and to whom they would be of more service, and more frequent subject of reference, than to any person in the Poona Zilla. In the event of this suggestion meeting with the approbation of Government, a general register of all the documents in the Duftur should be kept by the Agent at Poona, and another among the the records of Government in Bombay, while extracts of so much as refer to the several Zillas should be made over with the records to the respective Collectors, the records belonging to the Commissioner in the Deccan being made over to the Agent for Sirdars, to whose office they more particularly belong, and those connected with the Revenue Survey, and which are also in the Poona Duftur, being deposited among the records of the Collectors' Offices of Poona and Sholapore, to which they refer. The expense under this arrangement would be confined to little more than the cost of transmitting the several documents to their destination.

8. If, however, it is the determination of Government to keep the records entire, and in Poona, a copy of the register must be furnished to Government, as above suggested, and, in addition to the outlay above mentioned, which

ought to be incurred in arranging the documents, the Committee could not suggest a better mode of preserving them than that they should be left with the Amanutdars. This, however, would entail a monthly expense of at least Rs. 110, as the Committee are of opinion that four Karkoons, one on Rs. 40, another on Rs. 20, and two others on Rs. 10 each, would be absolutely requisite to look after the records, with two Peons on Rs. 5 per mensem each, and two Furashes on Rs. 4 each, with a contingent allowance of Rs. 12 per mensem.

9. The Committee cannot conclude their report without recording their opinion of the care and trouble with which the Amanutdars have discharged their duty, so far as their labours have extended, and of the neatness and cleanliness with which those records which have been arranged are kept.

(Signed) R. MILLS,  
Acting Agent.

„ W. E. FRERE,  
First Assistant Collector in Charge.

*Poona, 1st June 1839.*

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No. 2533 OF 1841.

POLITICAL DEPARTMENT.

To R. MILLS, Esq.,

Agent for Sirdars in the Deccan, Poona.

SIR,—I am directed to acknowledge the receipt of your letter No. 177, dated the 11th June last, forwarding the joint report of yourself and the Assistant Collector in charge, in regard to the future arrangement of the Poona Duffur.

2. In reply, I am desired to inform you that the delay which has taken place in the transmission of this report, as well as retention, without the express sanction of Government, of a portion of the establishment specified in the 9th paragraph of your letter, is considered by the Honorable the Governor in Council to be highly censurable.

3. As a necessity for the services of some additional Karkoons appears however to have existed for the purposes stated in the 10th and 11th paragraphs, the Honorable the Governor in Council is pleased to sanction the disbursement on that account, amounting to the sum of Rs. 1,727-10-8.

4. With reference to the question as to the disposal of the balance of the papers still unsorted, I am instructed to observe that many objections exist to the sale of such documents in the manner recommended in the 20th paragraph of your letter, and that to burn them without at least a partial inspection would be a measure to be regretted.

5. The Honorable the Governor in Council therefore considers that it would be preferable that the Amanutdars, with the assistance of the establish-

ment alluded to in the 24th paragraph of your letter, should look over these papers gradually, however long a period this process may occupy.

6. Adverting to the 21st paragraph, I am desired to convey to you the authority of Government to transfer to the several Collectorates the Zhurtces and Taleebunds appertaining to them.

7. For the separation of the assorted records, the Governor in Council conceives no extra assistance, in addition to the establishment alluded to in the 24th paragraph of your letter, can be required, and as the duties connected with the portion which will remain in the Poona Dufstur have been provided for by the transfer of these Karkoons from your office, all extra expenditure should cease for the future to be incurred.

I have the honour to be, &c.

(Signed) D. A. BLANE,

Acting Secretary to Government.

*Bombay Castle, 9th September 1841.*

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NO. 77 OF 1842.

POLITICAL DEPARTMENT.

TO THE SECRETARY TO GOVERNMENT, Bombay.

SIR,—I have the honour to submit, for the consideration and orders of the Honorable the Governor in Council, the accompanying copy of a letter from the Superintendent of the Revenue Survey in the Southern Muratha Country, regarding the detention in the Poona Dufstur of papers which should have been sent to him.

2. Previous to the receipt of this letter, a note from Mr. Goldsmid to Mr. Hart was handed to me by this gentleman, in which the former urges, in the strongest manner, the immediate adoption of measures to prevent those whose influence had kept back the papers alluded to, from tampering with them, which he said, from his information, he believed they would immediately do, if indeed they had not already done so, and that by delay the Government might lose "many thousands."

3. As Mr. Goldsmid did not name the persons to whom he alluded, and as the Government places its confidence in the Amanutdars of the Poona Dufstur, it struck me as the best mode of at once avoiding the deprecated delay, and sheltering them from the consequences of the supposed fraudulent intention of those who execute their orders, to send my principal Native servant in the Agent's Department to the Amanutdars, with a memorandum suggesting, in consequence of the information that had reached me of papers destined for the Carnatic not having been sent there as directed, that all the papers that remained in the Dufstur relating to that province should be immediately locked up in one room.



4. The Amanutdars adopted the measure recommended, and, in an interview I have since had with them, have expressed their obligations to me for having thus placed them in a position to satisfy the Government both of their honesty and of the actual condition of the records when Mr. Goldsmid's information reached Poona, which could not have been the case had I sent the memorandum in the ordinary mode—a mode which has let in the suspicions expressed by Mr. Goldsmid, and which would have afforded the very opportunity of tampering, of which advantage is supposed to have been taken to keep back papers the production of which would, in his belief, prove that “the Government has been defrauded of thousands upon thousands of rupees.”

5. In addition to the papers relating exclusively to the Carnatic (I use the Duftur denomination), Mr. Goldsmid mentions, in his private note on this subject, that he wishes to search the diaries of the Muratha Government relating to the whole of the Peshwa's empire, in which are to be found entries of all Sunuds granted, recalled, and re-issued daily, and he thinks the true result of this search will only be obtained by taking the diaries out of the Duftur, and employing trustworthy Karkoons in a private house. As this would be breaking up the foundations of the plan by which the Government thought their records most secure, I will not venture to say more respecting it than that I think Mr. Goldsmid, if he could be spared in the monsoon, would be the best person to execute the purpose he has in view.

6. I trust the Government will approve of the manner in which I have acted in the very awkward dilemma in which Mr. Goldsmid's note placed me.

I have the honour to be, &c.

(Signed) JOHN WARDEN,

*Agent's Office, Poona, 14th April 1842.*

Agent.

General No. 73.

To JOHN WARDEN, Esq.,

Agent for Sirdars, Poona.

SIR,—With reference to your predecessor's letter of 25th October last, No. 296, informing me that he had been instructed by Government to transfer to this department *all* the records then in the Poona Duftur relating to the Southern Muratha Country, I have the honour to bring to your notice that the documents forwarded with your Assistant's letter of 29th January, No. 30, consist for the most part of muster rolls of Sebundees, pay abstracts, ledgers, memoranda of receipts and disbursements, and other statements prepared only to answer the purpose of the day, and not affording any information that can be of the slightest service to the present Government, whilst I have every reason to believe that numerous documents, which it is of the greatest importance to the interests of Government should be made over to this department, have been detained at Poona.

2. I should, therefore, be exceedingly obliged by your having the kindness to inform me as to what papers connected with this province are still on your records, so that I may point out those which I wish to be forwarded to Dharwar. I should also be obliged by your being so kind as to make over to a Karkoon, who will be appointed by Mr. Hart for the purpose, the papers mentioned in the accompanying memorandum. You will, I believe, find that, with the exception of, perhaps, the दफ्तरी, the whole of the papers specified have been so arranged that the person in charge of the Dufur will be able to at once place his hand on them, and make them over to the Karkoon.

3. In order that you may take such precautionary measures as you consider necessary, it may be as well for me to mention that a report is current here that no endeavours will be spared by the influential personages, whose interests will, it is supposed, be affected by these documents, to prevent my receiving them before they have been tampered with.

I have the honour to be, &c.

(Signed) H. E. GOLDSMID,

Supt. Rev. Survey and Assessment, S. M. C.

*Supt.'s Office at Hooblee, Dharwar Collectorate, 2nd April 1842.*

(True copy)

(Signed) JOHN WARDEN,

Agent.

No. 1078 OF 1842.

POLITICAL DEPARTMENT.

TO JOHN WARDEN, Esq.,

Agent for Sirdars in the Deccan.

SIR,—I am directed to acknowledge the receipt of your letter No. 77, dated the 14th instant, forwarding copy of one from Mr. Goldsmid, Superintendent of the Revenue Survey in the Southern Muratha Country, stating that certain documents which should have been sent to him have been detained for improper purposes ; and, in reply, to inform you that Government entirely approves of your proceedings on the occasion.

2. The Honorable the Governor in Council further desires me to acquaint you that Mr. Goldsmid has this day been instructed to repair immediately to Poona, for the purpose of selecting such papers as may be required by him. You will therefore be pleased to allow that gentleman free access to the Dufurs, and retain a list of the documents that may be taken by him.

3. In the mean time, you are requested to continue your precautionary measures to prevent these papers being tampered with, including the Rozkhirds or diaries, which should be sealed and locked up.

I have the honour to be, &c.

(Signed) J. P. WILLOUGHBY,

Secretary to Government.

*Bombay Castle, 23rd April 1842.*

No. 1079 of 1842.

## POLITICAL DEPARTMENT.

To H. E. GOLDSMID, Esq.,

Supt. Revenue Survey and Assessment, Southern Muratha Country.

SIR,—With reference to your letter No. 73, dated the 2nd instant, to the address of the Agent for Sirdars in the Deccan, regarding the detention in the Poona Duftur of certain papers which should have been sent to you, I am directed to transmit for your information a copy of my communication of this day's date to that gentleman on the subject.

2. In forwarding this communication, I am desired to request that you will immediately repair to Poona, for the purpose of selecting such papers as may be required by you, and to inform you that Mr. Warden has been instructed to allow you access to the Dufturs. You will be pleased to leave with that gentleman a list of the documents that may be taken by you, and Mr. Warden has been requested in the mean time to continue precautionary measures to prevent these papers being tampered with, including the Rozkhirds or diaries, which are to be sealed and locked up.

I have the honour to be, &amp;c.

(Signed) J. P. WILLOUGHBY,  
Secretary to Government.

*Bombay Castle, 23rd April 1842.*

No. 89 of 1842.

## POLITICAL DEPARTMENT.

To the SECRETARY TO GOVERNMENT, Bombay.

SIR,—In reply to your letter No. 1078, dated the 23rd of this month, I have the honour to state that I met the Amanutdars by appointment last evening at the Duftur palace, and they suggested, as the most effectual way of executing the wishes of Government, in respect to the papers relating to the Carnatic, which are scattered through the different rooms, that the Duftur itself should be locked up and sealed till Mr. Goldsmid's arrival, and which was done accordingly. I have apprised Mr. Goldsmid of this arrangement, and begged him to repair to Poona as expeditiously as he can.

I have the honour to be, &amp;c.

(Signed) JOHN WARDEN,  
Agent.

*Agent's Office, Poona, 26th April 1842.*

No. 142 OF 1842.

## POLITICAL DEPARTMENT.

To the SECRETARY TO GOVERNMENT, Bombay.

SIR,—In reference to the correspondence noted in the margin, I have the honour to submit, for the information of the Honorable the Governor in Council, copy of a letter received from the Superintendent of the Revenue Survey and Assessment in the Southern Muratha Country, dated the 1st instant.

Letter from the Agent,  
No. 77, dated 14th April  
1842.

Reply to ditto from Mr.  
Secretary Willoughby, No.  
1078, dated 23rd April  
1842.

Letter from the Agent,  
No. 89, dated 26th April  
1842.

2. I have resumed charge of the Duftur, entertaining the two Karkoons Bappoojee Rughoonath Bhut and Konher Dinkur Sohoncee, alluded to in your letter No. 802, dated the 19th March last, on the salaries sanctioned for Duftur Karkoons under the Amanutdars, and will, when I shall have been favoured with Mr. Goldsmid's promised report, solicit the orders of Government on the management of the Duftur for the future.

I have the honour to be, &amp;c.

(Signed) JOHN WARDEN,

*Agent's Office, Poona, 3rd December 1842.*

Agent.

To JOHN WARDEN, Esq.,

Agent for Sirdars in the Deccan.

SIR,—I have the honour to forward a Murathee memorandum descriptive of the papers selected from the Poona Duftur, in obedience to the directions conveyed in Mr. Secretary Willoughby's letter of 23rd April last, No. 1079. Catalogues of the papers selected have been prepared, and will be forwarded to you by Mr. Robertson directly they are received from the binder.

2. I cannot sufficiently express my sense of your kindness in having, in the first instance, so promptly taken precautionary measures to prevent the abstraction of documents pending my arrival, and subsequently, for the long period I have been engaged at Poona, in having allowed me the opportunity of a full examination, although by so doing you at times seriously inconvenienced yourself.

3. On my arrival at Hooblee, I will lose no time in reporting to you the state in which I found the Poona records.

I have the honour to be, &amp;c.

(Signed) H. E. GOLDSMID,

Supt. Rev. Survey and Assessment, S. M. C.

*Poona, 1st December 1842.*

(True copy)

(Signed) JOHN WARDEN,

Agent.

No. 3100 OF 1842.

POLITICAL DEPARTMENT.

To JOHN WARDEN, Esq.,

Agent for Sirdars in the Deccan.

SIR,—I am directed to acknowledge the receipt of your letter dated the 3rd instant, No. 224, and to inform you that the Honorable the Governor in Council approves of your having re-entertained the two Karkoons Bappoojee Rughoonath Bhut and Konher Dinkur Sohoney, on the salaries mentioned by you.

2. Mr. Goldsmid's promised report will be awaited by Government.

I have the honour to be, &c.

(Signed) J. P. WILLOUGHBY,  
Secretary to Government.

*Bombay Castle, 21st December 1842.*

No. 46 OF 1845.

POLITICAL DEPARTMENT.

From the AGENT FOR SIRDARS IN THE DECCAN,

To the CHIEF SECRETARY TO GOVERNMENT, Bombay.

*Dated Poona, 28th February 1845.*

SIR,—I have now the honour to hand over, for the purpose of being laid before the Honorable the Governor in Council, the accompanying copy of a report to my address, from Mr. Goldsmid, on the present state of the Poona Duftur; and hope the Government and the Honorable the Court of Directors will consider that compensation has been made by this officer, for the unavoidable delay that has occurred in the preparation of this paper, in the value and importance of his remarks.

2. It requires the quickness and clearness of Mr. Goldsmid, and his indefatigable energy in the prosecution of a task, however irksome, from which he believes the public interests can derive benefit, to carry out the plan he lays down in his 29th, 37th, 43rd, and other paragraphs, for ascertaining, and enabling others hereafter to ascertain, all the information which the Poona Duftur may afford on the subject of alienations of the public revenue by the Peshwa's Government; and when I recollect that, to these qualifications, he has added unusually great acquirements as a Murathee scholar, at the same time that his practical experience in the administration of public affairs in India has taught him the danger of trusting to Native subordinates, I am disposed to recommend that Mr. Goldsmid's services should be secured, at any cost, on his return from his projected short visit to England, to complete the examination he has so ably begun, and record its result.

3. The robbery alluded to in his 5th paragraph took place, I am told, within two months from the accession of the British Government. The disappearance of other papers which came under the review of Mr. Macleod may be partly accounted for by the early transmission to the Konkun (which from the time of its conquest was excluded from the authority of the Commissioner, and made subordinate to Bombay) of papers relating to that province.

4. In regard to Mr. Goldsmid's observations in his 9th and 10th paragraphs, I may mention that the Peshwa's Government was so well aware of the fact that "none but persons long conversant with the documents could know in what direction they should turn when searching for particular information," that the office of Duftur Karkoon was hereditary, and the son served his apprenticeship to it while his father was yet alive to teach him the mazes of the labyrinth; and the service of these persons was obtained by Mr. Elphinstone, and their honesty secured, by high pay and reversionary pensions,—one Rowjee Pensé still lives at Poona, and is referred to on doubtful points. Mr. Chaplin's safeguard was the appointment of a Canarese Brahmin from the Ceded Districts, who was not mixed up with the private interests of the Peshwa's subjects, to the office of Record-keeper, on a salary of Rs. 500 a month, and a reversionary Inam of Rs. 4,000 per annum. He, again, was succeeded by his son, who now enjoys a pension of Rs. 400 a month; and so long as I had any connection with the Poona Duftur, I had, as I now have, a Canarese Superintendent; and if I had been in the Deccan when this plan was exchanged for that of delivering the Duftur into the hands of *Amanutdars* or depositaries, I should have taken the liberty of recording my earnest protest against such an imprudence, compared to which Mr. Bell's proposition of the lock and key appears wise.

I do not wish to speak with disrespect of these Native gentlemen, still less to connect them and the disappearance of papers mentioned by Mr. Goldsmid; but it was subjecting persons,—of whom one had risen in fame and fortune with the fall of the Peshwa's Government, and was an object of hatred to some and of envy to all, and another had followed Bajee Rao into exile, and only returned to his country after the lapse of several years, with an acknowledged and excusable prejudice against the British,—it was subjecting them to temptation to introduce them into a record office from which the public had till then been diligently excluded, and in which they might find the means of benefitting their friends and injuring their enemies; and it was with the strongest conviction that this step had been a false one that I incurred the responsibility, on receiving Mr. Goldsmid's first representation, of interfering, contrary to the orders of the Government, with the *Amanutdars*, and locking them out of their Duftur; and as the Government approved of the measure, I may now say that the occasion justified the abruptness of the act.

Mr. Goldsmid's suggestions in regard to papers already extracted from the

Poona Duftur do not seem to call for any remark from me ; they will attract the attention of His Excellency in Council as he peruses the report.

I have the honour to be, &c.

(Signed) JOHN WARDEN,  
Agent.

*Poona, Agent's Office, 28th February 1845.*

TO JOHN WARDEN, Esq.,  
Agent for Sirdars, Poona.

SIR,—With reference to the promise I made in my letter of 10th June last (to Agent for Sirdars, No. 43), I have now the honour to forward my observations on the state of the Poona Duftur. These would have been submitted some weeks since, had I not been prevented by the pressure of duties, consequent on my sudden removal from the Inam Committee to the office of Acting Collector.

2. Among the correspondence with which you favoured me, regarding the Poona Duftur, I find the following remarks, made under date 1st August 1836 (letter to the Acting Secretary with the Right Honorable the Governor, at Poona, No. 216 of 1836) by your predecessor, Mr. Bell :—

“ I am not aware that any valuable information can be furnished from the old archives, as I have every reason to believe that all the valuable and useful papers have long since been abstracted, and as these old archives can now be of little use in the management of the country, I venture to recommend that they may be locked up, and the key kept with the Agent, who can either personally attend, or depute some trustworthy person, to open the Duftur whenever a copy of any paper may be required.”

3. The remarks made by you on my arrival at Poona led me to believe that the surmise of Mr. Bell was erroneous. I have every reason to feel thankful, as regards the interests of Government and of the people, that these remarks encouraged me to avail myself of the facilities you so kindly afforded me for examining and selecting papers of importance.

4. The importance to Government of the records selected, the reports already forwarded by the Committee to Government, on claims to lands and villages, sufficiently show. They are of still greater importance as regards the people, and the opinion formed of the fairness and equity of Government by its subjects ; for by means of these documents the Committee is enabled to report favourably on the title by which Inams are held by helpless claimants, who can show no written authority. As an example, I may quote a paragraph from a letter of the Inam Committee to Government, dated 23rd October 1844, No. 64, forwarding reports regarding two villages held free from assessment as hereditary Inams :—

“ Although (the Committee observe) in one of these cases next to no evidence has been produced by the Inamdar, and in the other the occupant

has been unable to produce any evidence at all, the records in the hands of the Committee, especially those brought from the Poona Dufur,\* have prevented the possibility of any wrong being done to the claimants. The Committee, therefore, in submitting these their first two reports on *bonâ fide* Inam villages, venture to solicit the attention of Government to the different nature of proof, both positive and negative, which the records must always furnish respecting good and faulty titles to such alienations, independent of the assertions of the claimants, or of whatever evidence they can adduce. This difference will at once be evident on contrasting the nature of the proof obtained regarding Hindusgeeree and Dewunkop, notwithstanding the helpless condition of their occupants, with that recorded in the Committee's reports already made on several villages held as Inam by the defective or fabricated titles which the claimants have endeavoured to support by both documentary and parole evidence."

5. The Amanutdars, in their Report dated 23rd September 1835,† quote your late Sheristedar as their authority for stating that "some of the papers were formerly stolen," and that in consequence of this, and other causes, it appeared to them very doubtful whether the records would be found correct according to the "original lists" (framed by the record-keepers on the establishment of the Commissioner of the Deccan).

6. The original lists here alluded to were not drawn out in a manner which would have enabled persons seeking information to ascertain what particular papers included in the lists were deficient. Some of the documents found among the archives contain allusions to others which are not forthcoming; but in most instances it is impossible to ascertain whether the deficiency occurred previous or subsequent to the records coming into the possession of the British Government. In some instances, however, portions of, and entire documents, which unquestionably were at one time in charge of the record-keepers employed by the Commissioner of the Deccan, have disappeared; but supposing they were intentionally made away with, it is fortunate that other authentic documents have been found in the Dufur to supply the deficiency, as far as the Carnatic‡ is concerned. On the other hand, "General Accounts," not included in a Memorandum prepared by Captain Macleod under date 29th May 1819, of the "General Accounts of the Carnatic to be found in the

\* Note by the Committee.—"In the report on Hindusgeeree, of the forty-four records quoted in the 5th paragraph thirty-four are of the Poona, eight of the Dharwar, and two common to both Dufurs.

"In that on Dewunkop, of the sixty-nine records quoted in the 6th paragraph fifty-six are of the Poona, nine of the Dharwar, and four common to both Dufurs."

† Translation forwarded to Government by Agent for Sirdars, with letter dated 9th October 1835, No. 350.

‡ My search and examination of the records having been made solely with reference to the Southern Muratha Country, I am unable to state whether these remarks are applicable to records relating to other provinces.



"Poona Duftur," were discovered by me among the records, and these additional accounts are evidently genuine.

7. It may probably be expected that I should offer an opinion regarding the manner in which the papers were arranged by the record-keepers employed under the Commissioner.

8. In the absence of any written explanation as to the point from which they started, and the time they took in arranging the records, it would be unfair to criticise their work; especially when we bear in mind that since it was completed the papers were thrown into considerable confusion, and that the subsequent assorting by the Amanutdars has necessarily involved such changes as altogether to set aside the original arrangement.

9. This original arrangement is explained by Captain Macleod, in his Memorandum\* of 15th September 1819, to have been made as follows:—

"Since the formation of the Duftur establishment under the Commission, the Duftur has been completely examined and arranged into separate districts, and mostly also into Purgunas, and its arrangement by years also is in considerable progress."

Such traces, however, as remain are sufficient to show that the arrangement, though made with much care and trouble, had the fault common to the Native mode of assorting records; that is to say, that none but persons long conversant with the documents could know in what direction they should turn when searching for particular information, so that it was impossible for any newly appointed officer to ascertain whether or no the whole of the information contained in the records regarding any particular subject of inquiry had been furnished.

10. The inconvenience of such a mode of arrangement, however much it might be felt in after years, would not attract notice so long as the persons who had made, and were acquainted with it, were at hand to be consulted; but even then Government and parties interested in obtaining information were entirely at the mercy of these walking indexes.

11. Another most important omission on the part of the record-keepers under the Commissioner is, that no means were left by them for ascertaining the sources whence the various papers they had arranged were derived; consequently, with regard to many of the papers, it is now impossible to determine whether they had been originally found among the Peshwa's records, or afterwards collected by the Commissioner of the Deccan from different quarters.

12. The arrangement made by the Amanutdars for putting the records in order, though imperfect, appears to me to be as good as could be expected, considering the restricted amount of their establishment. Many of their catalogues are drawn up in a manner sufficiently in detail without being unnecessarily minute, and those which are too indefinite principally refer to

\* Memorandum appended to the Honorable Mr. Elphinstone's Report on the Territories conquered from the Peshwa.

classes of papers, the contents of which could not have been exhibited in the catalogues without an examination much more detailed and difficult than their opportunities and establishment admitted of the Amanutdars making ; indeed, as regards many of those classes of documents, the general catalogues must have been made before the Amanutdars could have entered upon others embracing more detail.

13. The following appear to me to be the chief defects in the arrangements of the Amanutdars :—

I.—That no means were taken to secure the identification of the papers in such a manner that others could not be surreptitiously substituted.

II.—That in the same bundles, and in the same catalogue, papers eminently useful were entered with others which ought to have been thrown on one side as not being of the slightest utility.

III.—That documents were put up as whole which were formed of parts, some of which parts are useful and others the contrary ; each part being capable of easy separation, without at all affecting the integrity of those really important.

14. I.—As regards the want of means for the identification of papers, it will be readily understood that no catalogue, however complete, can secure the identification of the papers it refers to. For example, a paper containing the estimate of the revenue of a particular district for a particular year may be abstracted, and another substituted with the heading or preliminary paragraph and the different totals to tally with those of the abstracted document, whilst the items may be altogether different.

15. In paragraph 11 of the Government letter to the Agent for Sirdars in the Deccan, No. 1041, of the 4th September 1835, it was ordered that this facility for fraud should be prevented by the stamping of each paper with a seal engraved by Mint machinery, so as not easily to be imitated. Only a part of the correspondence regarding this seal is among the papers with which you favoured me, but it would appear from the Government letter of 19th April 1841 to the Agent for Sirdars in the Deccan, No. 1262, that the seal furnished by the Mint had been found useless (probably in consequence of the inscription having been too complex to be taken off with ink), and, consequently, that Government had ordered that one should be made “without loss of time by any common silversmith” at Poona. Government, in giving this order, observed that “It is of very little importance whether the seal is well or ill executed ; in either case it will serve to authenticate the documents, which is all that is required.”

16. With deference, I beg to observe that a seal made by a “common silversmith at Poona” could be imitated by any other of the same trade ; and, therefore, that the stamping of papers with such a seal would be of no value as a precautionary measure.

17. Ultimately, the plan of stamping was virtually abandoned, Government deciding (letter to Agent for Sirdars in the Deccan, dated 14th October

1841, No. 3118) that even those papers which were to be transmitted to the different Collectorates need not be stamped before leaving the *Dufter*.

18. II.—As regards the cataloguing and arranging of useless as well as of important documents of the *Amanutdars*, Ballajee Punt Nuthoo was not residing at Poona during the time I was employed in the *Dufter*; but with the others I had occasional opportunities of conversing. They allowed the force of the objection I had urged, but pointed out that the evil was one which could at any after-time be remedied, and that they had not felt themselves at liberty to reject or to destroy any documents connected with the *Dufter*, as such rejection and destruction might afterwards have been misrepresented or misconstrued. And they also pointed out that they themselves could not have been constantly present during the assorting, and they would not have dared to delegate any such power of selection to their subordinates.

19. There are some of the documents which the *Amanutdars* were right in not authorising their establishment to reject, as though, from their headings and the upper items, the probabilities were that they might have been set aside as useless, some of them would, on detailed examination, have been found to contain entries of some importance,—for instance the “*Nugdee Taleebunds*” or abstract statements of cash transactions. Not one out of a hundred of these is of the slightest use; still in the hundredth there may be some entry which shows where facts of importance regarding grants, resumptions, &c. are to be found.

20. There are, however, other papers which might have been rejected in the most summary manner,—such, for instance, as muster rolls of *Sebundeas*, pay abstracts, lists of contents of granaries, memoranda of fort stores, &c.

21. To show the number of useless documents put up by the *Amanutdars*, I may mention that of the three hundred and forty-three bundles, or fifteen tattoo-loads, sent me by them in February 1842, from Poona, the papers which ought to have been selected, as actually or probably useful, would fill about one hundred and eighty bundles,\* sufficient to form a load for seven tattoos.

22. III.—The not having separated the important parts of documents of a mixed character from the portion altogether unimportant. The papers in which separation was most urgently required, and might have been most readily thus made, were the *Rozkhirds* and the *Ghurneas*.

23. The *Hoozoor Rozkhirds* or *Peshwa's* diary consist of three separate parts,—1st, the *Pota*; 2nd, the *Rowasudjee*; 3rd, the *Duffeta*. No two parts are written on the same fold, but the translations of each day form within themselves a whole.

24. The *Pota* is again subdivided into two parts, the *Jumma* and the *Khurch*, each of which is written on separate folds. The former is useful, as it contains entries of receipts in which reference is frequently made to the terms

\* Including those referring to districts in the *Madras* and *Mooghlaee* territories.

and dates on which alienations of land and revenue were made, grants resumed, districts given in farm, &c. The Khurch portion is altogether useless, as it only shows, in minute and particular detail, the amount paid out of the Treasury on account of food, clothes, paper, alms, allowance to household troops, &c.

25. The Rowasudgee, in which are adjusted transactions connected with bills granted by Government in favour of its creditors, pensioners, &c. on different chiefs, local officers, and others, from whom public revenue was due, is useful, as containing references similar to those mentioned as appearing in the Jumma portion of the Pota.

26. The Duffeta was that portion of the diary in which all grants, resurreptions, orders for farming districts and villages, appointments of revenue officers, &c. are noted.

27. The Khurch, or useless portion, exceeds by at least three-fourths the whole of the rest, and, being written on separate sheets, or rather folds, could readily have been set aside, and thus the bulk of the whole been diminished, and reference to the portion really useful facilitated. I may mention that the diaries which I brought with me from Poona of the officers employed in this province filled two hundred and forty-two large bundles, or twenty tattoo-loads, but by the rejection of the folds containing the Khurch entries they have been now reduced to twenty-five very large bundles, or three tattoo-loads.

28. The Ghurneas may be explained, in general terms, as containing, or being intended to contain, a classification, under their various heads, of the several details, useful and useless, to be found in the Rozkhirds and other accounts: useful, such as copies of Inam grants, lists of alienated villages, Wurshasuns, &c.; useless, such as clothing expenses, charges for food, pay to troops, &c. These Ghurneas fill two thousand six hundred and ninety-two bundles, many of them of a *very large* size. My selections of those containing useful papers, relating, some exclusively, and others partially, to this province, filled thirty *very large* bundles, and, to the best of my recollection, selections of all that is calculated to be of use in other provinces would not fill two hundred and fifty more; thus enabling the balance of useless matter, amounting to say two thousand four hundred bundles, to be destroyed.

29. There is a question for consideration,—viz. whether, by abstract statements judiciously framed, the necessity of constantly referring to the bulky documents of the Duftur might not be obviated.

30. The Amanutdars, in paragraph 7 of their Report\* of 23rd September 1835, state that “The first apartment of the Duftur Palace is occupied with the Murathee records of the Agent’s Court, and on inquiry of their nature from the Agent’s Sheristedar, he informed us that they were abstracts of the Peshwa’s Duftur, taken during the administration of the late Commissioner, together with statements, lists, and abstracts.”

\* To Agent for Sirdars. Translation forwarded by that Officer to Government, with his letter dated 9th October 1835, No. 350.

31. Captain Macleod, in his Memorandum above alluded to (paragraph 9), states that " Full and complete statements of all allowances, as Surinjam (Fouz and Zat), Tynat, and such like, have been made out, and also lists of all Inams, Dewusthans, and Suwusthans, Dhurmadaus, Kitta, Wurshasuns, Nemnooks, Khyrats, allowances to Peers and Fakeers and Mosques, Balpurwurshee, Maaf, Bukshish, Dehengee, Mezwanee, garden and Sunudee lands, Wutun lands of Zemindars for the Deccan, Carnatic, and Khandeish, and the Peshwa's provinces in the Nizam's country, which have also been translated, and forwarded in Murathee and English to the Collectors. Similar lists of the Konkun and Guzerat are in progress ; the Dufturs of the Konkun for the last ten years have been sent to Bombay. Abstracts of the produce, deductions, and net revenue of the whole country, during the last year of Bajee Rao, have been framed by districts, Pugunas, and Mahals, and in more than half the country by separate villages. For the purpose of authenticating the above lists, each item has been compared with the accounts of the two different periods, viz. the latest in the Duftur from whence it was taken, and another of from fifteen to twenty years preceding ; and very often three or four different periods of accounts have been compared. The accurate correspondence which has been observed among them is very remarkable. In many cases, the particular dates and circumstances of the original grants have been examined \* \* \*."

Of these statements, lists, and abstracts, I have brought to Dharwar all exclusively or partially relating to the Carnatic.

32. The " lists of all Inams, Dewusthans," &c. are not explanatory of the terms on which the grants enumerated therein were made ; and although they may embrace all the grants which appeared in such of the accounts as were forthcoming, and were deemed authentic at the time Captain Macleod drew up his Memorandum, they do not include many grants which other documents, undoubtedly genuine, now show to be unquestionably valid. The lists are also, unfortunately, deficient as showing neither the authorities, that is the particular records from which they were compiled, nor the dates of those records.

33. The abstract statements, though drawn up with great labour and care, are likewise imperfect as regards quotations of authorities and dates. Moreover, the want of any heading to some of these abstracts, and too much abbreviation in the items composing others, prevent the inquirer in after times from knowing what many of them were intended to show, until he perchance recognises them after arriving at the same conclusions by a laborious selection and collection of documents, probably the very same from which the abstract had been drawn out. The impression on my mind is that most of these abstracts were framed, not for the purpose of being useful at after periods, but rather as notes of reference prepared by the subordinate employés previous to explaining to the Head Karbaree, and by the Head Karbaree previous to explaining to the Commissioner and his Assistants, the facts elicited from an inspection of the records bearing on particular subjects

then under inquiry. I have also met with several rough, and now useless memoranda, which, apparently, were prepared to enable the framers of the abstract statement in question to refresh their memories as to the documents to which reference was to be made, in the event of the officer for whose information the statements had been drawn out inquiring as to the authorities for the facts therein stated.

34. The preparation at any general, or even at any local Record Office, of abstracts from the revenue documents relating to individual villages, or to individual Talookas, would not do away with the necessity of referring to those documents; as each case on which the documents bear has its own distinctive features, and some particulars which might not appear of importance sufficient to be embodied in a general abstract might yet be of the greatest importance as elucidating a particular subject of inquiry. Moreover, a simple catalogue would readily embrace information sufficient to enable an inquirer to lay his hand on the whole of the papers likely to assist him in his investigation regarding any particular case.

35. But there are papers of a more general nature, such as the Rozkhirds, Ghurneas, and Bheras, the important portion of the contents of which could not possibly be catalogued, but which might be and ought to be condensed in abstract and tabular statements, in such a manner as to enable an officer to ascertain, without the trouble and delay of visiting the Record Office itself, where in the original records there existed any entries throwing light on a particular subject regarding which he might happen to be inquiring.

36. Captain Macleod mentions in his Memorandum (quoted above, paragraphs 9 and 31), that "with a view to the final and ready adjustment of any disputed title, and to ensure immediate reference, an extract has been made from the Duftur, particularly the Rozkhirds, of the date and authority of all grants whatever, and of all forfeitures or restorations of grants from the beginning of the Duftur to the year 1776, and is now in progress towards the present time. It is arranged alphabetically by the names of the grantees, like Native Khutawnee, containing under each the date, circumstances, and particulars of all Sunuds, grants, or allowances that were made, resumed, or restored by Government. This has been a work of much labour, but, when finished, will form a table of authentic reference, by which any question or doubt which may at a future time arise can at once be settled."

37. From the Khutawnee or ledger I selected and brought with me to Dharwar all the folds containing entries regarding the Carnatic. The authorities for the different entries are not quoted, but most of them appear to have been drawn from the Duffeta portion of the Peshwa's diary. To render the compilation, which even in its present state is of considerable use, capable of answering the purposes indicated in paragraph 35, it is necessary that the entries should be carefully collated with those in the Jumma portion of the Pota and the Rowasudjee of the Peshwa's diary, as well as with the entries in the journals of the officers employed in the different provinces, as also with the Ghurneas,

Bheras, Aznases, and other principal accounts; and that extracts should be made from those accounts of all registries of grants, resumptions, &c. &c. which ought to have appeared in the Peshwa's Duffeta, but which, in consequence of the loss of some of the folds, and other circumstances, are not now to be found there. These added, a table of contents should be drawn out in such a form as would enable a person making reference to ascertain at a glance what particular districts, villages, &c. were affected by each entry.

38. Until such a compendium is prepared, great power must of necessity be delegated to the subordinate officers employed to search the principal documents for the entries on any subject, and the power is the greater that orders, grants, &c. recorded in one diary, Ghurnea, or Bhera, &c. may have been cancelled or modified in a subsequent one. The labour of search, also, is enhanced by the fact that it by no means follows that a *Sumud* of any particular date has been recorded under that date; indeed, very often the entry will be found recorded many days subsequent or previous to the date which the *Sumud* bears.

39. The *Amanutdars* cannot be held at all blamable for not having made any abstract or tabular statements, as their preparation would have occupied a larger establishment than they had at their disposal, and required a degree of personal superintendence which their own duties and avocations would have left them no leisure to bestow.

40. It now remains for me to notice the documents which have not been indexed or arranged by the *Amanutdars*. Some of these are in bundles, placed in upstairs rooms sufficiently commodious and airy to prevent the chance of injury, and it is evident, from the labellings and sundry index lists, that several of them were examined, and, to a certain degree, arranged by the establishment of the Commissioner of the Deccan. There are also immense quantities of loose papers, with occasional bundles scattered among them, which I found in different rooms and closets, subject to damage from damp, vermin, &c.

41. Mr. Mills, in paragraph 18 of his letter No. 177, of 11th June 1841, appears to make no distinction between the loose and scattered papers and those better cared for; but states regarding the whole, that they are not likely to compensate for the trouble of search.

42. I examined *all* the better cared for bundles, and selected from them papers which filled eighty-six cloths; many of these papers have been found of particular importance. The papers rejected by me, and left at Poona as not containing any information bearing on the Carnatic (although many of them are important as regards other districts), filled 3,380 bundles.

43. The loose and scattered papers I had no time to examine, but I took the precaution of moving them into the best rooms I could find available, for the purpose of sealing up the doors, and of covering the open windows and lattice-work with cloths secured by seals. I took out, at random, some of the papers, and am convinced that though many of them are useless, enough would

be found to fully compensate the labour and expense of search; and I am of opinion that among them would be discovered many of the documents relating to the Carnatic which the Inam Committee have found to be deficient. It is almost needless to say that the state in which they are defies any hurried attempt at selection for the purpose of surreptitious abstraction.

44. I cannot help considering, as fraught with danger of many kinds, the measure adopted by Government of directing the Agent to send the selected papers of districts and villages to the head quarters of the different Zillas, before some provision has been made sufficient to guard against the possibility of fraud, either by abstraction and substitution of papers, or by affording facilities for persons preferring claims to shape their statements so that they cannot be controverted by the Dufur records.

45. It is true that Government, when deciding, as mentioned in paragraph 17, that the records need not be marked before leaving the Dufur, ordered that, after reaching the place of destination, the Collectors "should not allow them to pass into the records of their own offices until duly stamped in their presence, or that of an Assistant" (paragraph 3 of letter to Agent for Sirdars, dated 14th October 1841, No. 3118); but it might be worth while to ascertain *how far these instructions have been obeyed*, and it should be recollected that, even if they have been fully complied with, copies of the Collector's seal are generally multiplied for his Assistants, and that as they are used rather as a matter of form than as a means of authentication, they are often in the hands of the subordinates of the office, who, consequently, have ample opportunities of stamping any document which it may be intended to fraudulently introduce into the Dufur.

46. I would recommend the adoption of the suggestion, made by Messrs. Mills and W. E. Frere in their joint report\* of 1st June 1839, for altering the size and arrangement of the numerous rooms and closets in which the assorted bundles of records are now placed; at present, unperceived entering from without can only be prevented by sealing up a large number of doors and windows.

47. In conclusion, I beg to repeat my warm acknowledgments for the precautionary measures taken by you previous to my arrival at Poona, and for the encouragement and assistance you subsequently so liberally afforded me.

I have the honour to be, &c.

(Signed) H. E. GOLDSMID,  
Late Member of the Inam Committee.

*Dharwar, 11th February 1845.*

(True copy)

(Signed) H. E. GOLDSMID,  
Late Member of the Inam Committee.

\* Paragraph 6 of Joint Report forwarded to Government by Agent for Sirdars, with letter dated 11th June 1841, No. 177.



No. 4087 of 1845.

## POLITICAL DEPARTMENT.

To JOHN WARDEN, Esq.,

Agent for Sirdars in the Deccan, Poona.

SIR,—I am directed to acknowledge the receipt of your letter No. 46, dated the 28th February last, forwarding copy of a communication from Mr. Goldsmid, late Member of the Inam Committee, dated the 11th of the same month, submitting a report upon the present state of the Poona Duftur.

2. In reply, I am desired to inform you that Mr. Goldsmid is deserving of the thanks and commendation of Government for the zeal and interest which he has evinced in the examination and arrangement of these voluminous records.

3. Mr. Goldsmid, however, shows that much remains yet to be done to complete this examination, and to select from these records those of the greatest importance: as this, however, will entail considerable expense upon Government, since it would appear inexpedient to employ any but European agency upon this delicate and important duty, a reference is about to be made to the Honorable the Court of Directors for their instructions upon this subject.

4. In the mean time, I am instructed to request that every care may be used to prevent any of these important documents from being abstracted or tampered with, and no Native should be permitted to have access to the places where these records are deposited, except in the presence of his European superior.

5. With reference to the 3rd paragraph of Mr. Acting Secretary Blanc's letter No. 3118, dated the 14th October 1841, I am desired to draw your attention to the 25th paragraph of Mr. Goldsmid's present report, and to request that you will be pleased to state how far the instructions of Government in regard to the stamping of the documents sent out of the Duftur have been acted upon.

I have the honour to be, &amp;c.

(Signed) E. H. TOWNSEND,

*Bombay Castle, 25th August 1845.*

Secretary to Government.

No. 183 of 1845.

## POLITICAL DEPARTMENT.

From the AGENT FOR SIRDARS IN THE DECCAN,

To the CHIEF SECRETARY TO GOVERNMENT, Bombay.

*Dated Poona, 30th October 1845.*

SIR,—In obedience to the orders conveyed in Mr. Secretary Townsend's letter No. 4087, dated 25th August last, I requested the Collectors to state how far the instructions of Government in regard to the stamping of the

documents sent out of the Poona Duftur have been acted upon, and I have now the honour to submit, for the information of His Honour in Council, the substance of the replies received from them.

1. The Collector of Sholapore, in his reply No. 388, dated 6th of last month, informs me that the documents transferred to his Collectorate were impressed with his seal in the presence of his Third Assistant.

2. The Collector of Rutnagherry acquaints me, in his reply No. 1058, dated 6th of last month, that the documents transferred to his Collectorate amount to 670,968, of which 3,859 were stamped at Poona ; that he will now see that the remainder are properly stamped, and the whole placed entirely under the charge of his Dufturdar, in whose integrity he has every confidence, and that no one is allowed admission into the record-room except a Karkoon employed under his Dufturdar.

3. The Collector of Kaira, in his answer No. 123, dated 25th of last month, informs me that the documents transferred to his Collectorate were duly stamped in the presence of his predecessor, Mr. Kirkland, and are lodged in the Treasury as a separate Duftur.

4. The Collector in Khandeish, in his letter No. 985, dated 30th of last month, states that the records had been allowed to pass into his office without being stamped, and that he is unable to ascertain how this omission occurred ; and that he would take immediate measures to have them delivered over to one of his Assistants, who will both sign and seal each paper.

5. The Acting Collector of Tanna, in his reply No. 1273, dated 1st of this month, states that the instructions of Government were not acted upon when the records of the Poona Duftur arrived, owing to his not being aware, until the receipt of my letter, of the existence of such instructions ; that he has personally inspected the seals on the original packets which came from Poona, and there appeared to be no reason to believe they had been opened on the road. They have since, he informs me, been kept locked up, the key being in the custody of his Dufturdar.

I have the honour to be, &c.

(Signed) JOHN WARDEN,

*Agent's Office, Poona, 30th October 1845.*

Agent.

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No. 5320 OF 1845.

POLITICAL DEPARTMENT.

To JOHN WARDEN, Esq.,

Agent for the Sirdars in the Deccan, Poona.

SIR,—I am directed by the Honorable the Governor in Council to acknowledge the receipt of your letter No. 183, dated the 30th ultimo, relative to the stamping of the Poona records transferred to the several Collectorates under

this Presidency, and in reply to observe that there appears to have been great remissness on the part of the Collectors of Rutnagherry, Khandeish, and Tanna, in not having attended to the orders of Government on this subject.

2. With reference to paragraphs 2 and 5 of your letter, I am desired to refer you to the 4th paragraph of Mr. Secretary Townsend's letter No. 4087, dated the 25th August last, directing that "no Native should be permitted to have access to the places where these records are deposited, except in the presence of his European superior," and to request that you will impress upon the different Collectors in whose offices these records are deposited the necessity of carefully attending to this order.

I have the honour to be, &c.

(Signed) J. P. WILLOUGHBY,  
Chief Secretary to Government.

*Bombay Castle, 24th November 1845.*

# INAM COMMISSION.

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No. 3187 OF 1848.

TERRITORIAL DEPARTMENT, REVENUE.

To W. COURTNEY, Esq.,

Acting Secretary to Government.

SIR,—With reference to paragraph 4 of the Government letter dated 31st December last, No. 5465, I have the honour to submit a report from the Inam Commissioner, dated 1st July last, on his proceedings up to the end of 1847, which is so clear and full as to leave me but little to say in addition.

2. The first twelve paragraphs contain the history and origin of the Inam Commission up to the time reported on, exhibiting the extent of the abuses which called for its formation in a manner that needs no comment; the only subject for regret is, that a similar Commission does not exist in each Collectorate of the Southern Division.

3. The nature of the work done by the Commission is next (paragraphs 15, 16) explained, and in paragraph 17 three succinct statements are contained, exhibiting the work brought before the Commission up to the end of 1847, and the number of cases decided in that time. The number of claims recorded up to the end of 1847 was 15,954. The number reported by the Commission was 1,510, of which thirty-three were claims to entire villages. Considering that many of these claims required lengthened reports, and a careful sifting of old records, the work done by the Commission during the period reported on is, I submit, very creditable to the Superintendent's industry.

4. The Superintendent shows (paragraph 18) that he has collected numerous records, from both district and village officers, which will doubtless prove more or less useful. The Superintendent will not fail to take care of these documents, and they should, I submit, be punctually returned to their owners, when the occasion for retaining them has ceased. Several complaints have been made to me by hereditary officers, that old records produced by them before European officers have been permanently retained, and when once immersed in all the rubbish of a Collector's Kutcheree they are rarely afterwards discovered.

5. The expenses of the Commission during 1847 are shown in paragraph 19. Mr. Hart estimates the value of Inams recommended for resumption at

Rs. 18,623 of annual income. With his postscript of 13th July the Commissioner forwards three tables, which afford the following information:—

Expense of the Inam Commission since its institution.....Rs. 66,395

Revenues recovered by its labours ..... 40,748

two years of whose proceeds would thus cover the expenses of the Commission.

6. Mr. Hart shows that under the present system his work will be tedious, and the probable period of its completion is uncertain: were it much facilitated in its work, it would, I fear, be no easy matter for this department to dispose of all its cases as they arrived.

I have the honour to be, &c.

(Signed) E. H. TOWNSEND,

Revenue Commissioner Southern Division.

*Revenue Commr.'s Office, Poona, 3rd October 1848.*

No. 597.

To D. A. BLANE, Esq.,

Revenue Commissioner Northern Division, in temporary Charge

Southern Division.

SIR,—In pursuance of the instructions contained in the Government letter to the Revenue Commissioner Southern Division, No. 5465, dated 31st December 1847, an extract from which (paragraphs 1 to 4) accompanied Mr. Townsend's endorsement to my address, No. 28, dated 5th January 1848, I have now the honour to report the progress of the Inam Commission's labours up to the close of 1847. As this is the first report of the kind yet submitted, it may be well that it should furnish some general recapitulation of the circumstances which have led to the constitution of the Commission, as well as of its occupation during the past year only; and I therefore propose to touch briefly on the following topics, viz:—

Paras. 2 to 12. I.—The circumstances which led to the appointment of the Inam Commission as at present constituted.

Paras. 13 to 18. II.—The nature of its duties, and the progress made in their fulfilment especially, during the past year.

Paras. 19 and 20. III.—The expenses of the Commission, and the effect of its work of last year on the revenues of Government.

Para. 21. IV.—The probable period of the completion of its investigations.

2. It has long been notorious that numerous portions of the Mahals in the Southern Muratha Country have become alienated from Government, as Inam, in an unauthorised and fraudulent manner. Various attempts were made by the Peshwa's Government to check this abuse; but, as was to be expected in districts so remote from the seat of Government, so constantly subjected to change of management, so incessantly vexed by invasions and rebellions, by the depredations of plundering adventurers, and by the quarrels and consequent

ravages of the Jagheerdars and great officers who held them, and so mismanaged by dishonest Komavisdars, these attempts always failed, and the unauthorised proceedings by which land was alienated from the State became more and more frequent with the progress of the mismanagement and anarchy which reached their height during the reign of Bajee Rao, the last Peshwa.

3. When Sir Thomas Munro took possession of the Southern Muratha Country in A. D. 1817-18, he noticed the abuses which existed with respect to the fraudulent acquisition of Inams, &c. as well as to their unauthorised resumption; although, so long as he retained charge of the province, it was in a state too unsettled to admit of these being deliberately rectified.

4. For instance, when writing to the Honorable Mr. Elphinstone, in a letter dated 8th March 1818, in camp near Belgaum, he says, on the subject of charitable and religious expenses in these districts:—

“A large portion of them will be found to have arisen from unauthorised grants and other frauds. The whole should be carefully investigated after peace is restored and the country settled, and such part of the expenditure as is of modern date, and not duly authorised, should be stopped. This course is followed by the Native Governments at every new succession, and frequently more than once in the same reign.”

Again, in a letter to Mr. Elphinstone dated 28th August 1818, he writes,—  
“Many Inams will be found on examination to have been given clandestinely by revenue officers without authority. Every one, from the Kurnum of a village to the Sursoobah of the Carnatic, grants both lands and pensions. The Sursoobah or his deputy, when he is about to quit his office, fabricates a number of Inam Sunuds; he gives away some and sells the rest. The new Sursoobah resumes some, but continues a part of them. When such Inams have not by long possession become in some degree the fair property of the possessors, they ought to be resumed.”

5. In A. D. 1819, the year following that in which the above letter was dated, Mr. Elphinstone, as Commissioner in the ceded and conquered provinces, prescribed some rules for the settlement of Inam claims. In the letter with which these rules were circulated he stated that it was not intended that any general scrutiny should *at once* be commenced, and indeed he did not seem to consider his rules as yet altogether perfected; for in the same letter he requested his subordinates to offer any questions and suggestions that might occur to them on the subject. That, however, he even then looked forward to a more extended scrutiny of Inam claims, and well knew its necessity, is evident from another paragraph of the letter already alluded to, in which he writes:—“When our system is more matured, perhaps a year hence, it will be expedient to add, as a further reward to officers discovering recent fraudulent alienations, a grant of the revenue of the year in which the resumption takes place.”

6. The first general scrutiny commenced after the introduction of the

present Government was that instituted by Mr. Thackeray, Principal Collector of Dharwar, whose death at Kittoor prevented its completion. Since then, inquiries have been resumed at times by several Collectors and their Assistants; but their proceedings have always been desultory, and the decisions consequent on them isolated; and though every Collector has assented to the necessity of a thorough investigation, and some have even commenced to make one, none such was ever completed, nor was even any general register of the alleged titles of the lands held as Inam ever drawn up, the only one commenced having been abandoned before completion. All this was to have been expected, from the insufficiency of European officers which was always experienced in the new Collectorates, or, rather, from the want of a particular office specially appropriated to the settlement of the enormous number of alleged Inams in existence; for it is probable that if half the amount of labour which has been expended by constantly changing Collectors and their Assistants, each desultorily working at his own plan, had been concentrated and methodised by such an office, a tolerably complete settlement might have been long ago effected.

7. There was, however, another and an essential deficiency in all the investigations commenced, which has certainly in some cases vitiated the decisions passed on them, not only by local officers but by the Bombay Government and the Honorable Court of Directors. I allude to the necessity which existed of wholly trusting for evidence to the assertions of interested persons, either unsupported, or supported only by accounts lately given in by them or lately obtained in these districts, for the genuineness of which there could, of course, be no guarantee. *The Peshwa's Duffur* was then virtually inaccessible, and almost unknown.

8. On the appointment of Mr. Goldsmid as Superintendent of the revised Revenue Survey and Assessment in this province, he was naturally startled by the enormous proportion of land alienated in the shape of Inams, &c. in the two Collectorates of Dharwar and Belgaum. *Besides the whole Mahals* entirely assigned as Jagheer and Surinjam, he found about *seven hundred entire villages* alienated *out of the Khalsat Mahals* of both Collectorates, and in the balance of 2,452 villages left for Government, and *Khalsat* by denomination, he estimated the number of minor alienations at about sixty thousand estates\*; the share left for Government, even in these its Khalsat villages, not averaging one-half thereof!

9. On Mr. Goldsmid commencing to investigate the origin of this extraordinary and almost incredible state of things, he was able to collect information and accounts from different quarters which tended to show that many of the multitude of alleged Inams in this province were surreptitious alienations, and being aware of the immense importance of the Poona Duffur as evidence

\* The Inam Commissioner's returns show that they then amounted to 59,967. But the lapse of Tasgaum, &c. will greatly increase the number to be inquired into.

on this subject; he as long ago as the 25th September 1841 suggested to Government the expediency of taking additional measures of precaution lest the Poona records should fall into the hands of the local revenue officers here before being carefully examined.

10. Government, on the 7th October 1841, in a letter, No. 3001, in the Territorial Department, assented to Mr. Goldsmid's suggestions, and he was subsequently deputed to Poona to collect and make arrangements for the safe custody of the records relating to the Southern Muratha Country, a duty which he had completed, as far as it was then possible, by the end of A. D. 1842.

11. Being in possession of these important records, and so far prepared to investigate, under more favourable circumstances than had fallen to the lot of any other officer, the numerous claims for Inams in this province, the Superintendent wrote to the Revenue Commissioner Southern Division his letter No. 131, dated 9th February 1843, and subsequently to Government his letter No. 178, dated 4th May 1843, the result of which was the appointment, by the Chief Secretary's letter No. 2054, dated 16th June 1843, of a Committee, composed of Mr. Goldsmid, and Moro Punt, Principal Sudder Ameen, for the purpose of investigating the titles of persons holding villages and lands as Inam in several of the Talookas of this province.

12. On the 17th January 1844, in conformity with the Chief Secretary's letter to the Revenue Commissioner Southern Division, No. 195, I was added to the above Committee; but subsequently, owing to the successive removal of my colleagues, was, in November 1844, left unassisted in the investigation until September 1847, when Captain M. F. Gordon was appointed to assist me.

13. Such is a brief sketch of the circumstances which led to the Inam investigation, and the present constitution of the Commission appointed to conduct it. I shall next describe the extent and nature of the duties which this Commission has had to perform.

14. On the 16th June 1843, Government, in the Chief Secretary's letter No. 2054, directed that the Inam inquiry should be commenced in the Talookas of Hooblee and Nowlgoond. On the 16th September following, investigation was, by the Chief Secretary's letter No. 3035 of 1843, extended, so as to include titles to Inams consisting of whole villages in the other Talookas of the Southern Muratha Country, and on the 17th January 1844, by the Chief Secretary's letter No. 195, to all Inams in that province; to which was added the duty of reporting on the emoluments, &c. of village and district hereditary officers. On the 29th July 1845, the Commissioner's duties were, under orders from the Honorable the Court of Directors, communicated in Mr. Secretary Townsend's letter No. 3693, again confined to the Talookas of Hooblee and Nowlgoond; but, on the 28th April following, they were finally extended to the whole Southern Muratha Country, under orders



from the Honorable Court,\* intimated in the Government letter No. 2144 of 1846.

15. The work performed by the agency of the Inam Commission since its establishment has principally consisted in receiving the statements of Inamdars, and recording the evidence by which they are supported; translating and submitting these statements for the decision of Government; investigating and reporting on miscellaneous matter referred by Government and various officers as likely to be elucidated by the Peshwa's records; and reporting, in conjunction with the Superintendent Revenue Survey, on the condition and proposed settlement of the village and district hereditary officers and service establishments.

16. During the period intervening between the 26th May and 20th November 1847, instead of reporting each case for the decision of Government, I myself, under the authority deputed to me by the Chief Secretary's letter No. 1900 of 1847, passed decisions, subject to appeal; but in consequence of Government being led to doubt the legality of this mode of procedure, I have, since the last of the above dates, under orders conveyed in the Government letter No. 4835 of 1847, reverted to the system of reporting each case as before for the decision of Government, my reports being, however, now submitted through your department, instead of direct.

17. The following tables will show the proportion of work completed by the Inam Commission last year, as compared with those preceding:—

TABLE I.

*Number of Claims to Inams received and recorded, up to the close of  
A. D. 1847.*

| Nature of Claims.                        | Up to close<br>of 1846. | In 1847. | Total. |
|--|-------------------------|----------|--------|
| Whole villages as Inam . . . . .         | 60                      | 23       | 83     |
| Estates in Government villages . . . . . | 14,025                  | 1,846    | 15,871 |
| Total..                                  | 14,085                  | 1,869    | 15,954 |

\* The orders of the Honorable the Court of Directors here alluded to were contained in paragraphs 14 to 18 of a letter, No. 25, to the Government of Bombay, dated 18th February 1846, in which they direct the extension of the Inam investigation to the whole of the Southern Muratha Country, recognising the decisions of Government on the Commission's reports then submitted to them as "based on just and liberal principles," and repeat their "approbation of the spirit in which the Commission had commenced their inquiries," hoping that the further investigations of the Commission, and the decisions passed thereon, might be "characterised by the same spirit of liberal consideration towards the occupants as marks those which have been reported," &c.

TABLE II.

*Number of Claims disposed of by the Inam Commission before the close of A. D. 1847, whether by Report to Government or by Decisions passed under the authority conveyed in the Chief Secretary's letter No. 1900 of 1847.*

| Nature of Claims.                              | Claims disposed of up to the close of 1846. |              |        | Claims disposed of in 1847. |              |        |
|--|---|--------------|--------|-----------------------------|--------------|--------|
|  | By Report.                                  | By Decision. | Total. | By Report.                  | By Decision. | Total. |
| Claims to whole villages as Inam . . . . .     | 12  | ..           | 12     | 10                          | 11           | 21     |
| Claims to estates in Government villages . . . | 850   | ..           | 850    | ..                          | 627          | 627    |
| Total . . . . .                                | 862   | ..           | 862    | 10                          | 638          | 648    |

TABLE III.

*Number of Claims on which the Decisions of Government were declared, up to the close of A. D. 1847.*

| Nature of Decisions.  | Up to the close of 1846. | In 1847. | Total. |
|---|--------------------------|----------|--------|
| On claims to whole villages as Inam.....                          | 8                        | 4        | 12     |
| On claims to estates claimed as Inam in Government villages ..... | 850                      | ..       | 850    |
| Total.....  | 858                      | 4        | 862    |

18. Besides the work mentioned in the above tables, a good deal of work of other descriptions has been effected up to the close of the past year. Classified lists have been made of the Inams in each Talooka, which, from the death of the holders or other causes, have been referred to the Inam Commission by the Collectors of Dharwar and Belgaum as seeming to require especial attention. The cases thus filed and arranged for decision amount to two thousand eight hundred and sixty-eight. Large quantities of records have been collected from the district officers of the Belgaum and Dharwar Collectrates, and from the village officers throughout the whole Southern Muratha Country, which, though not very trustworthy, will be of use so far as they are corroborated by more authentic accounts; and as each district and village officer has furnished a declaration that he has kept back none, the collection of them will, at least, prevent the danger of a future fabrication of ancient "accounts" by the officers in question. This work is still in progress. Statements of the

village officers in several Talookas have also been taken, and are still being received, regarding the Dewasthan establishments of their villages; classified lists have been prepared of all lands held as Inam in each Talooka of the Belgaum and Dharwar Collectorates; village lists, showing the extent, value, &c. of each Inam in each village of the Dharwar Collectorate, and the history of its continuance since the introduction of the present Government, have been completed, and the preparation of similar lists commenced for the Belgaum villages. Information has been afforded on various references from Government, the Revenue Commissioner, the Resident at Sattara, the Political Agent Southern Muratha Country, and the Collectors of Dharwar and Belgaum. Some of the cases in which such references have been made were of much importance,—as, for instance, those of the Nurgoond Chief's application for leave to adopt, and the question as to the resumption of Deevce Sing Thorkey's holdings in Khandeish, in which the Honorable the Court of Directors was evidently about to relinquish its rights solely for want of the clear evidence regarding them which has now been furnished by the Peshwa's records.

19. The cost to Government of the Inam Commission in A. D. 1847 will appear from the following statement:—

*Expenses of the Inam Commission in A. D. 1847.*

| Items of Expenditure.       | Amount Sanctioned. |    |    | Amount actually Expended. |    |    | Excess of Actual Expenditure above the Amount Sanctioned. |    |    | Saving effected on the Amount Sanctioned. |    |    |
|-----------------------------|--------------------|----|----|---------------------------|----|----|---|----|----|---|----|----|
|                             | Rs.                | a. | p. | Rs.                       | a. | p. | Rs.   | a. | p. | Rs.                                       | a. | p. |
| Inam Commissioner.....      | 15,543             | 2  | 9  | 15,543                    | 2  | 9  | ....  |    |    | ....                                      |    |    |
| Assistant ditto .....       | 1,869              | 10 | 10 | 1,869                     | 10 | 10 | ....  |    |    | ....                                      |    |    |
| Contingent office expenses. | 374                | 12 | 9  | 374                       | 12 | 9  | ....  |    |    | ....                                      |    |    |
| Dead stock ditto. ....      | 17                 | 3  | 0  | 17                        | 3  | 0  | ....  |    |    | ....                                      |    |    |
| Batta to witnesses, &c. ... | 128                | 15 | 2  | 128                       | 15 | 2  | ....  |    |    | ....                                      |    |    |
| Office rent .....           | 200                | 0  | 0  | 200                       | 0  | 0  | ....  |    |    | ....                                      |    |    |
| Pay of establishment ...    | 9,600              | 0  | 0  | 7,292                     | 1  | 4  | ...   |    |    | 2,307                                     | 14 | 8  |
| Total ...                   | 27,733             | 12 | 6  | 25,425                    | 13 | 10 | ....  |    |    | 2,307                                     | 14 | 8  |

20. As only a small number of the Inam Commission's decisions passed and reports made in 1847 have yet been revised by Government, according to the intention intimated in the Government letter to the Revenue Commissioner Southern Division,\* No. 4835, dated 20th November 1847, it is impossible to make an accurate statement of their effect on the income of the State; but I calculate that it will be to add to them a permanent annual revenue of upwards of Rs. 18,000,\* of which about half will probably be an immediate addition,

\* The total annual revenue of alleged Inams shown by the Inam Commissioner's reports and decisions in A. D. 1847 to be *improperly held* is estimated at Rs. 18,623. Of these the Inam Commissioner's decisions declared a number, valued at Rs. 3,054 per annum, continuable as

and the rest will lapse at the death of present incumbents, the average age of whom is forty-three years. The effect of this will be the same as if Rs. 1,80,000 of the Honorable Company's most disadvantageous debt were to be *at once* paid off *without taking into account the deferred addition*, the exact value of which I am not capable of determining. This would be a startling effect, considering the insignificance of the machinery by which it has been accomplished, were it not for the amazing manner in which unauthorised alienations of land in this province have always been allowed to exist and increase, for want of any sufficient system of supervision or inquiry.

21. Regarding the probable period of the completion of the work of the Inam Commission, I can form no estimate under present circumstances. But unless some means be adopted for obviating the necessity of reporting each case in detail for the orders of Government, very many years must elapse before it is accomplished. The second table in paragraph 17 shows that the "decisions" which I was enabled to pass in A. D. 1847 comprised claims to six hundred and thirty-eight Inams. These were all completed between May and November, so that in that period of six months I was able to dispose of a number of cases exceeding two-thirds of the number which had been the result of the Inam Commission's labours during the preceding three and a half years. This was chiefly owing to an arrangement by the Revenue Commissioner of the Southern Division dispensing with English translations in any of the cases finally adjudicable by him, under the provisions of the Chief Secretary's letter, No. 1900 of 1847, which Government has since felt obliged to recall, and the renewal of some such provisions as soon as they can be legalized seems peculiarly desirable.

22. I have to apologise for not submitting this report before now, but I was anxious, before doing so, to be able to make some conjecture as to when I should have prepared reports of the six hundred and thirty-eight decisions passed by me as above for the revision of Government. These reports have now been completed, and I hope will be transcribed and forwarded to you by the end of this month.

I have the honour to be, &c.

(Signed) W. HART,

Inam Commissioner.

*Dharwar, 1st July 1848.*

#### POSTSCRIPT.

1st.—The following tables will afford an approximation to the financial result of the investigations of the Inam Commission from *its first institution* up to the close of 1847. They are added to the above report in conformity

life-holdings, and a portion, valued at Rs. 9,309, as subject to immediate resumption, leaving the remainder, valued at Rs. 6,260, for the special consideration of Government, to be either continued as life-holdings or resumed at once, as might be judged expedient.

with the desire of the Revenue Commissioner, intimated<sup>6</sup> in his Memorandum No. 2015, dated 7th July 1848.

2nd.—It will be seen that the total expense incurred by Government for the Commission, up to the end of last year, amounts to about Rs. 66,400, and that as a set off against the annual interest at five per cent. on the sum thus sunk, viz. Rs. 3,320, a permanent annual revenue of upwards of Rs. 40,000 is to be ultimately recovered by Government, the greater portion of this being at once available, and the rest to lapse at the death of present occupants, whose average age is forty-three years.

TABLE I.

*Statement of Total actual Expense of the Inam Commission since its institution.*

| Items of Expenditure.  | Up to end of<br>A. D. 1846. | In A. D. 1847,<br>as shown in<br>paragraph 19. | Total.      |
|--|-----------------------------|--|-------------|
|  | Rs. a. p.                   | Rs. a. p.                                      | Rs. a. p.   |
| Salary and all personal allowances of<br>Members of the Commission, and Inam<br>Commissioner. .... | 22,083 11 4                 | 15,543 2 9                                     | 37,626 14 1 |
| Assistant ditto .....  | .....                       | 1,869 10 10                                    | 1,869 10 10 |
| Contingent office expenses. ....   | 1,117 1 8                   | 374 12 9                                       | 1,491 14 5  |
| Dead stock ditto. ....   | 107 15 0                    | 17 3 0   | 125 2 0     |
| Batta to witnesses and sanctioned gra-<br>tuities. ....  | 153 10 4                    | 128 15 2                                       | 282 9 6     |
| Office rent .....  | 49 10 10                    | 200 0 0  | 249 10 10   |
| Pay of establishment. ....   | 17,084 3 11                 | 7,292 1 4                                      | 24,376 5 3  |
| Expenses connected with custody of<br>Poona Duftur and repairs to Duftur<br>room .....             | 372 14 2                    | .....  | 372 14 2    |
| Total. ....  | 40,969 3 3                  | 25,125 13 10                                   | 66,395 1 1  |

TABLE II.

*Estimate of Total Revenues belonging to Government recoverable in consequence of the Investigations of the Inam Commission, up to the end of A. D. 1847.*

| Item recoverable.  | Up to end of<br>A. D. 1846. | In A. D. 1847,<br>as stated in Note<br>on para. 20. | Total.  |
|--|-----------------------------|---|---------|
|  | Rupces.                     | Rupces.   | Rupces. |
| Amount of annual value of unauthorised<br>alienations discovered by the Inam<br>Commission, as recorded in reports to<br>Government and decisions subse-<br>quently reported ..... | 22,125                      | 18,623  | 40,748  |

TABLE III.

*Specification of the Total Sum of Rs. 40,748 entered above in Table II. of  
Postscript.*

| Specification of Value according to mode of<br>procedure adopted.   | Under Govern-<br>ment Decisions,<br>passed up to the<br>end of A. D. 1847. | By Inam Com-<br>missioner's De-<br>cisions, passed<br>under the au-<br>thority of the<br>Government<br>Letter No. 1900<br>of 1847. | Total.  |
|---|--|--|---------|
|   | Rupees.  | Rupees.  | Rupees. |
| Annual value of lands ordered for imme-<br>diate resumption . . . . .   | 15,025   | 9,309  | 24,334  |
| Annual value of lands allowed to remain<br>rent-free during the lives of present<br>incumbents. . . . .   | 7,100  | 3,054  | 10,154  |
|   | 22,125   | 12,363   | 34,488  |
| Add the annual value of unauthorised alienations in cases submitted<br>in the first place for the consideration of Government, and not yet<br>referred to either of the above two heads . . . . . |  |  | 6,260   |
| Total .....   |  |  | 40,748  |

(Signed) W. HART,  
Inam Commissioner.

No. 6522 OF 1848.

TERRITORIAL DEPARTMENT, REVENUE.

To E. H. TOWNSEND, Esq.,

Revenue Commissioner Southern Division.

SIR,—I have been directed by the Right Honorable the Governor in Council to acknowledge the receipt of your letter of the 3rd instant, No. 3187, handing up the first annual report of the Inam Commissioner on his preceedings to the close of 1847, submitted by that officer in conformity with the instructions of Government contained in Mr. Secretary Goldsmid's letter, to your address, No. 5465, dated the 31st December last.

2. In reply, I have been desired to state that though there is little in this report calling for particular remarks or observations, the progress made in the investigation of Inam claims during the period reported on is very creditable to Mr. Hart, and the results appear to Government eminently satisfactory.

3. His Lordship in Council observes that the number of claims to Inams

received and recorded in the year under report (1847)<sup>c</sup> was 1,869: of these 23 were to whole villages, and 1,846 to estates in Government villages; the number of cases disposed of during the same period was 648,—21 of which were for whole villages, and 627 for estates in Government villages.

4. At paragraph 20 of his report, the Inam Commissioner explains that owing to the whole of the decisions passed by him in 1847 not having yet been reviewed by Government, he is unable to make an accurate statement of the result as affecting the revenues of the State; but that he calculates it will be to add a permanent annual revenue of upwards of Rs. 18,000. The total cost of the Inam Commission for 1847 was Rs. 25,425-13-10.

5. The report of the Inam Commissioner also exhibits similar results for the whole period of the Commission's labours from its commencement to the close of 1847. He shows that the number of claims received and recorded was 15,954, the total number disposed of 1,510, the financial result in revenue belonging to Government, recoverable in consequence, Rs. 40,748 per annum, and the total cost of establishment, &c. Rs. 66,395-1-1.

6. The Governor in Council notices that Mr. Hart has given no estimate of the probable period of the completion of the work, and he states his inability to do so under present circumstances. I am instructed to request that he will, if possible, in future reports, furnish some account of the number of claims still remaining for investigation, even if unable to state when his inquiries will probably be completed.

7. I have been desired, in conclusion, to inform you that His Lordship in Council considers that the Inam Commissioner is entitled to the commendation of Government for his exertions during the year under report.

I have the honour to be, &c.

(Signed) W. COURTNEY,  
Acting Secretary to Government.

*Bombay Castle, 25th October 1848.*

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No. 832 OF 1846.

TERRITORIAL DEPARTMENT, REVENUE.

TO R. K. PRINGLE, Esq.,

Chief Secretary to Government, Bombay.

SIR,—I have the honour to submit a correspondence, as per margin, with

From the Collector, No. 61, of  
27th February 1846.

To ditto, No. 398, of 5th March.

From ditto, No. 130, of 20th April.

To ditto, No. 714, of 25th idem.

From ditto, No. 159, of 8th May.

the Collector of Broach, relative to the investigation of the titles to Inams in that Collectorate.

2. An investigation of the nature in question involves much labour in the details, such as the preparation of statements, registration and copying of deeds and other papers, &c. exclusively of the portion of the

inquiry to be necessarily conducted in the presence of the European officer, and these details would, I conceive, be found to require the assistance for a time of additional Karkoons for that specific duty.

3. In the present instance, however, the ability of the Collector or his Assistant to undertake the continuous prosecution of the inquiry is not, it would seem, to be depended upon, and the increase of establishment under such circumstances would probably be of little avail. I hesitate, therefore, for the present, to recommend the additional Karkoons applied for, but bring the subject to the notice of Government, in order that the provision, when found to be practicable, of the necessary European agency for effecting this investigation, may receive their consideration.

I have the honour to be, &c.

(Signed) D. A. BLANE,

Revenue Commissioner Northern Division.

*Revenue Commr.'s Camp, Bombay, 13th May 1846.*

No. 227 of 1847.

TERRITORIAL DEPARTMENT, REVENUE.

To R. K. PRINGLE, Esq.,

Chief Secretary to Government, Bombay.

SIR,—I have the honour, with reference to the Government letter No. 809, of 26th February 1846, relative to the validity of the titles to lands and other allowances in the Broach Zilla, to submit a letter, No. 32, of 3rd instant, from the Collector, reporting his proceedings in the investigation in question.

2. The Collector expresses (paragraph 6) his opinion that the inquiry may be conducted without the aid of the additional establishment applied for by his predecessor, relying on the operation of the instructions that no new succession is to be permitted without express authority.

3. There is, however, one point, viz. the Interpretation of Regulation VI. of 1833, on which I am doubtful of the correctness of the view taken by him, and would beg, therefore, to be favoured with the instructions of Government thereon.

4. Referring to the statement accompanying his letter, the Collector appears to assume the applicability of the Rules of the 23rd June 1842, to the exclusion of the thirty years' limitation in the abovementioned Regulation; for instance,—

*Case No. 1.*—The land has been held free of assessment for more than thirty years, and is in the hands of a mortgagee, there being no heir male to the grantee in whose name the land is entered. The Collector thinks the land will revert to Government, or, as I understand him, that it may be assessed either on the death of the mortgagee, or of the widow of the gran-



tee, should she redeem the mortgage. This could only be done by a notice in accordance with the Regulation, when the question would be decided in the regular course; and as the period in the Regulation has already transpired, such decision need not, perhaps, be anticipated. But in the other cases, the period of occupation by the actual incumbents is still incomplete, and if, as I suppose, thirty years' actual enjoyment would, under the Regulation, be fatal to the Government claim to assessment, care must be taken that the inquiry be not too long delayed.

5. The questions which appear to me to arise are as follows :—

I.—Would not proof of exemption from assessment for more than thirty years entitle a mortgagee and his heirs to enjoyment until the mortgage be redeemed, irrespectively of there being heirs or otherwise to the original grantee ?

II.—Are not devises or assignments by the original grantee, or his heirs, or by any actual incumbent possessing the title of thirty years' exemption, sufficient, as well as direct succession from the same parties, to bar either a lapse to Government or resumption on decease of the incumbent, under the Rules of the 23rd June 1842 ?

6. A decision on these points would enable the Collector more readily to discriminate, on a summary inquiry, in what cases early cognisance is of importance, and in what the investigation may be allowed to lie over until the next decease of the actual incumbent.

I have the honour to be, &c.

(Signed) D. A. BLANE,  
Revenue Commissioner Northern Division.

*Rev. Commr.'s Camp, Suwat, 13th February 1847.*

NO. 1219 OF 1847.

TERRITORIAL DEPARTMENT, REVENUE.

To D. A. BLANE, Esq.,

Revenue Commissioner Northern Division.

SIR,—In acknowledging the receipt of your letters Nos. 832 and 227, dated respectively the 13th May and 13th February last, forwarding a correspondence with the late and present Collectors of Broach, on the subject of a proposed investigation of the titles to Inam lands and other allowances in that Collectorate, I am directed by the Honorable the Governor in Council, with reference to paragraph 3 of the first-quoted letter, to observe, that as it does not appear that the Collector can proceed with this duty on a general and systematic plan, especially with the present deficiency in the complement of his Assistants, nothing would be gained by giving him an extra Native establishment for that purpose.

2. As, however, His Honour in Council has reason to believe that some investigation into Inam titles was made by a Special Commission at the period of Major Monier Williams' Survey between 1808 and 1813, you are requested to call upon the Collector to ascertain and report, for the information of Government, whether any such investigation actually took place, and if so, what was its extent and nature.

3. With advertence to paragraph 3 *et seq.* of your letter No. 227, dated the 13th February last, I am desired to convey to you the following instructions on the points connected with rent-free titles submitted by you for decision.

4. In so far as the Rules of the 23rd June 1842 differ in their operation from those laid down in Regulation XVII. of 1827, and other Regulations bearing on it, the latter must be adhered to in all districts except Khandeish, the Deccan, and the Southern Muratha Country.

5. Mortgage being a temporary tenure, the validity of the title must be determined with reference to the claims of the original and permanent holder.

6. Devises or assignments by an original grantee or his heirs, to another party, should not bar the Government right of escheat as respects the former, unless they have been made with the sanction of Government and without reservation, in which case the family of the assignee may be considered as having come into the place of that of the original grantee.

7. In conclusion, I am instructed to inform you that the Governor in Council considers it very desirable to ascertain exactly in what position the proceedings for investigating the validity of rent-free titles stand in the several Collectorates under your control, as it is to be apprehended that if no regular inquiry has ever yet been instituted on the subject, the prosecution of it may soon be barred altogether by the elapse of the regulated time of prescription, if it has not been so already, unless early steps are taken for proceeding with it. You are, therefore, requested to ascertain and report upon this point.

I have the honour to be, &c.

(Signed) R. K. PRINGLE,  
Chief Secretary to Government.

*Bombay Castle, 30th April 1847.*

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NO. 1220 OF 1847.

TERRITORIAL DEPARTMENT, REVENUE.

To E. H. TOWNSEND, Esq.,

Revenue Commissioner Southern Division.

SIR,—I am directed to transmit for your information the accompanying copy of a letter, No. 227, dated the 13th February last, from the Revenue

Commissioner Northern Division, and of my reply thereto of this date, relative to the validity of titles to Inam lands in the Collectorates of that division, and to convey to you the request of the Honorable the Governor in Council that you will report, at your earliest practicable convenience, how the question stands in the several districts of your charge, with the exception of the Southern Muratha Country, where an inquiry by the Inam Commissioner is now in progress.

I have the honour to be, &c.

(Signed) R. K. PRINGLE,

Bombay Castle, 30th April 1847.

Chief Secretary to Government.

No. 2913 OF 1847.

TERRITORIAL DEPARTMENT, REVENUE.

To H. E. GOLDSMID, Esq.,

Secretary to Government.

SIR,—I have the honour to acknowledge the receipt of the Chief Secretary's letter of 30th April last (No. 1220), with enclosures, inquiring "how the question stands in the several districts of my charge"; viz. "in what position the proceedings for investigating the validity of rent-free titles stand in the several Collectorates under my control"; and has any "regular inquiry ever yet been instituted on the subject?" (Paragraph 7 of the Chief Secretary's letter to the Revenue Commissioner Northern Division, dated 30th April 1847, No. 1219.)

2. The reply of the Collector of Poona, dated 21st May and 7th October, states, that "as by the orders of Government, conveyed in Mr. Chief Secretary Reid's Circular No. 911, dated 12th March 1840, the provisions of Chapter X. Regulation XVII. of 1827 have been declared inapplicable to this Zilla, inquiries into cases respecting Inam lands in which Government is a party, and the resumption of rent-free lands held on defective title, appear to have been hitherto carried on without reference to the period of enjoyment, excepting in so far as they come within the operation of the Rules of 23rd June 1842." In reply to a further call, in which I referred the Collector to the question contained in the Chief Secretary's letter (paragraph 7), his reply\* dated 7th ultimo does not, however, state *what has been done* in his Zilla, but again refers to the inapplicability of Chapter X. Regulation XVII. to his Collectorate. I have on the 17th instant requested the Collector to state the present state of the question as regards his Collectorate, and his reply, when received, shall be communicated to Government. I believe that no investigation into Inams generally has ever been made in the Poona Collectorate.

3. The Acting Collector of Ahmednuggur states (15th June) that "no

\* Sic in orig.

regular inquiry has ever been instituted in the Collectorate of Nuggur into the validity of titles to rent-free lands; but as doubtful cases have come to notice they appear to have been decided.

4. The Acting Sub-Collector, Mr. Tytler, reports (9th June) that "simultaneously with the Dang Survey" he investigated and disposed of all *doubtful* Inam claims in the two Talookas of which he held charge. Also, that when appointed Acting Sub-Collector, he investigated and disposed of several undisposed cases in the remaining three Talookas of the Sub-Collectorate. What was the result of these inquiries, or under what rules conducted, Mr. Tytler does not say. He alludes to a separate report which he has prepared on the subject, but adds a postscript to say that "the above Inams are totally distinct from our registered and acknowledged Inams," and are in fact "Ghair Dakhla," or "doubtful Inams."

5. This reply but partially disposes of the Government reference, which includes all *Inams*; for till such possessions are inquired into, it must ever be a question whether the registry and acknowledgment of them was made on sufficient or insufficient evidence. I have requested Mr. Spooner to call on the Sub-Collector for a full report on the state of the Inams in the Sub-Collectorate.

6. The Collector of Sholapore observes (16th July) that as by Clause 2nd, Section VI. Regulation XXIX. of 1827, the Revenue Courts have no jurisdiction with regard to Inams, he does not suppose that the limitation specified by Regulation VI. of 1833 would be applicable to these tenures. He further states, that "an investigation into the extent and value of the Inams in the four southern districts was made by Lieutenant Nash at the time of the Survey. In the Sholapore district, that of the Wurshasuns is nearly completed, and measures have been adopted for the early investigation of the claims to Inam lands held free of service. In the northern districts a preliminary investigation has been made by the Mamlutdars regarding these lands, and as soon as the season opens I hope the officer in charge of those districts will be able to prosecute the investigation." The Collector states that the quantity of Inam land in his Collectorate held free of service is 83,115 acres, the value of which (annual) is Rs. 37,959.

7. The Collector of Rutnagherry states (14th August and 18th September), that no general inquiry into grants of the nature indicated appears ever to have been made by a Special Commissioner or otherwise. As his letter enters upon certain legal questions connected with the subject, I have the honour to transmit it entire. The letters of the other Collectors are not sent, as their substance has been given above. The Collector's endorsement of 18th September relates to the letter from his predecessor of 8th December 1834 (quoted in paragraph 8), which was eventually discovered in this office, but of which, or of its accompaniments, no further use appears to have been made.

8. With reference to paragraphs 5 and 6 of the Collector's letter, I presume that no circular letter can control an Act of the Legislature; and that Act

VI. of 1833 being a modification of Regulation XVII. of 1827, Government would hardly rescind the later Regulation, and revive the older one. The remedy proposed by the Collector, viz. the adoption of immediate measures to inquire into all Inams, is certainly an excellent suggestion, if Government can afford the requisite extra assistance. With regard, however, to his last paragraph, years must elapse before the completion of the Inam Commissioner's work in Dharwar and Belgaum can admit of their entering Rutnagherry, unless Government should see fit to give Mr. Hart much additional assistance, even if the Revenue Commissioner should be able to dispose of the large increase of work caused by such an addition to the already numerous appeals from the Inam Commissioner's decisions.

9. An important limit, however, to the operations of Regulation VI. of 1833 appears to me to exist in the beginning of Clause 3rd of that Regulation, from which I understand that Clause 1st does not "apply to grants made without the authority of the Peshwa since A. D. 1803, regarding territory ceded by or conquered from that authority"; a description which would, I presume, include the six Collectorates of this division.

10. From the foregoing paragraphs His Honour in Council will perceive that little if anything has been done in the above four Collectorates of this division to decide upon the validity of rent-free tenures, except in parts of the Sholapore Collectorate, by Lieutenant Nash, of which I am not aware that any report has ever been submitted to Government, and in parts of the Sub-Collectorate of Nasik, where such as were considered "Ghair Dakhla," or "doubtful," were inquired into by Mr. Tytler.

I have the honour to be, &c.

(Signed) E. H. TOWNSEND,

Revenue Commissioner Southern Division.

*Poona Districts, Rev. Commr.'s Camp, Moosce, 26th November 1847.*

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No. 1040 OF 1847.

TERRITORIAL DEPARTMENT, REVENUE.

To the REVENUE COMMISSIONER SOUTHERN DIVISION,

Poona.

SIR,—In reply to your reference No. 929, of the 8th May last, calling on me to report in what position the investigation into the titles of rent-free lands stands in this Collectorate, I have the honour to inform you that no general inquiry into grants of the nature indicated appears ever to have been made up to the present time, either by a Special Commissioner or otherwise.

2. Upon reference to the records in this office, I find that, upon the death of an Inamdar, it was customary with the Mamledars to collect the rent of

such Inam, pending the receipt of orders from the Collector relative to its future continuance or otherwise. This practice was, however, discontinued under the instructions conveyed in Mr. Secretary Townsend's letter No. 2741, of the 21st September 1837, and the forms prescribed in Chapter X. Regulation XVII. A. D. 1827 were ordered to be observed previous to the resumption of any Inam.

3. Accordingly, in instances where ground was found to be held free of assessment, whether granted in Inam or not, the usual notice is issued, and proceedings are instituted in accordance with the law, which course continued up to 1842. From this year, all Inam grants held under Sunuds, or recognised as such in the Government books, have been disposed of agreeably to the provisions of the Rules of 23rd June 1842.

4. In paragraph 4 of the Government letter No. 1219, of 30th April 1847, received under your endorsement now acknowledged, the Regulation of 1827 is laid down as the authority for our guidance when its provisions clash with the Rules of 1842; but I may observe that by Regulation VI. of 1833 the period of enjoyment necessary to confer a prescriptive right is reduced from sixty to thirty years, whereas in the Rules of 1842 sixty years' enjoyment is requisite, as also two successions in lineal descent, when the claimant possesses no Sunuds or other documentary evidence in support of his hereditary title.

5. If, therefore, the Regulation of 1833 is to be abided by, Government will have to suffer great loss. In my humble opinion, the Rules of 1842 are so liberal and fair, that all questions to titles of these Inams should come under their operation, and, if requisite, a new Act might be framed for the purpose. Under such a provision, Regulation XVII. of 1827 could be confined to instances where portions of land may be held rent-free, either from the inattention and carelessness of the subordinate revenue officers or from the want of a proper survey. Portions, also, of land not entered in the Government accounts as Inams, neither being claimed as such, might be disposed of in the same way.

6. I may here observe, that if Regulation VI. of 1833 is to be acted upon in supersession of the Rules of 1842, and thirty years to be taken as the period of prescriptive enjoyment, immediate measures should be adopted, and additional assistance afforded, for the purpose of inquiring into the grants under consideration, as the thirtieth year since the fall of the Peshwa is now current.

7. The disbursements immediately under the head of "Inams" in this Collectorate, as detailed in the Murathee statement submitted with my Yad to your predecessor, No. 28, of the 2nd July 1845, are as follows:—

I.—Amount of assessment of villages granted to persons

as Surinjam Jagheer ..... Rs. 6,600 10 9

II.—Ditto ditto of villages granted in Mokassa Inam. 5,992 11 4

III.—Ditto ditto of lands granted in Inam to public servants, to Zemindars, Sirdars, and other honorable

personages ..... 40,530 5 2

|   |            |    |    |
|---|------------|----|----|
| IV.—Amount of assessment of villages and lands<br>granted in Dhurmadeo to Brahmins..... | Rs. 12,518 | 2  | 4  |
| V.—Ditto ditto of ditto ditto endowed for the sup-<br>port of temples, &c. ....         | 9,876      | 10 | 7  |
| VI.—Ditto ditto of lands held in Kowlee Inam .....                                      | 2,134      | 7  | 11 |
| <hr/>   |            |    |    |
| Total amount of alienations.....  | Rs. 77,653 | 0  | 1  |

8. I would here bring to notice that with his letter No. 748, of 8th December 1834, the Collector, Mr. Elliot, submitted a Murathee statement showing the items of alienations or charges on the public revenues in this Collectorate on account of allowances perpetual in their nature, but I have not been able to learn what use was made of it by Mr. Revenue Commissioner Williamson. However, as this inquiry was conducted solely by the Mamlutdars, and submitted in the same form, without apparently undergoing any scrutiny or investigation on the part of the Collector, by confronting the Inamdars (which, indeed, his multitudinous current duties could not admit of), the data embraced in the statement can hardly be viewed as affording satisfactory information relative to the validity or otherwise of the Inam grants therein enumerated.

9. In conclusion, I would suggest, in the event of its being the intention of Government to have an inquiry immediately instituted into these Inam grants, that the services of the Inam Commissioner in the Southern Muratha Country be made available as to the first four classes of the Inams specified in paragraph 7 of this Report, leaving the last two to be inquired into gradually by the Collector, according as circumstances may demand, since this could be done without much detriment from delay.

I have the honour to be, &c.

(Signed) H. LIDDELL,

*Rutnagherry, Collector's Office, 14th August 1847.*

Collector.

No. 2530 of 1847.

To E. H. TOWNSEND, Esq.,

Revenue Commissioner Southern Division.

SIR,—I have the honour to acknowledge the receipt of your letter No. 2800, dated 17th instant, and to inform you that, as far as I can ascertain, no regular inquiry has as yet been instituted in this Collectorate for investigating the validity of rent-free titles: on the death of the holders of Inams, the claims of the heirs are scrutinized, and ascertained to be good, before the lands are continued; but no regular system of inquiry into existing titles would appear to have been commenced on.

I have the honour to be, &c.

(Signed) W. COURTNEY,

*Collector's Office, Poona, 29th November 1847.*

Collector.

No. 3017 OF 1847.

Submitted for the information of Government, with reference to the letter from this Department No. 2913, of 26th ultimo, paragraph 2.

(Signed) E. H. TOWNSEND,

Revenue Commissioner Southern Division.

*Poona Districts, Revenue Commr.'s Camp Pabul, 4th December 1847.*

No. 474 OF 1848.

TERRITORIAL DEPARTMENT, REVENUE.

TO E. H. TOWNSEND, Esq.,

Revenue Commissioner Southern Division.

SIR,—The Honorable the Governor in Council having had under his consideration your letter dated the 26th November last, No. 2913, furnishing the information called for by Government on the 30th April last, regarding the present state of the inquiries into rent-free titles in the several Collectorates of your charge, I have been directed to inform you that Mr. Tytler should be required to forward immediately the separate report alluded to in your 4th paragraph, and Mr. Coles should be instructed to send to you, for transmission to Government, the proceedings held by the late Lieutenant Nash in the several cases of Inams settled by him. His Honour in Council has also desired me to state that he is much surprised to learn that such investigations should have been conducted without the knowledge of either yourself or Government.

2. His Honour in Council fully concurs in the observations made in your 5th paragraph, and you are requested to inform Mr. Tytler that it by no means follows that because an Inam is registered that it is acknowledged.

3. As regards Rutnagherry, it has, I have been instructed to inform you, been already decided by Government, (vide paragraph 4 of the Government letter No. 1214, dated 30th April 1847, to the Revenue Commissioner Northern Division, a copy of which was sent for your information and guidance on the same date,) that “in so far as the Rules of the 23rd June 1842 differ in their operation from those laid down in Regulation XVII. of 1827 and other Regulations bearing on it, the latter must be adhered to.” The question, therefore, now is, whether at the termination of thirty years from the period of its acquisition of the Konkun, Government is debarred from taking measures for bringing under assessment land which was fraudulently taken possession of as Inam during the first year of our rule, and has been ever since enjoyed as Inam.

4. On this point I have been directed to observe that Clause 2nd, Regulation VI. of 1833 distinctly excludes from the thirty years' privilege all “land



alienated since the British Government obtained possession of the country, and without its permission," and the 3rd Clause also excludes grants made without the authority of the Peshwa since 1803, in territory ceded by or conquered from that authority. These Clauses, therefore, taken together, give to the Government power to inquire into and decide all questions arising out of claims not going back further than A. D. 1803.

I have the honour to be, &c.

(Signed) H. E. GOLDSMID,  
Secretary to Government.

*Bombay Castle, 24th January 1848.*

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No. 1413 OF 1848.

TO H. E. GOLDSMID, Esq.,

Secretary to Government, Revenue Department.

SIR,—With reference to paragraph 3 of my letter of 26th November last, No. 2913, and to paragraph 1 of your reply of 24th January, No. 474, I have the honour to forward a letter, dated 10th December, No. 1654, from the Collector of Ahmednuggur, with enclosures and endorsements, the last of which is dated 21st March.

2. Mr. Spooner, in paragraph 2 of his letter of 10th December, refers to his predecessor's of 15th June as disposing of the Government reference; but it was because that letter but *partially* replied to the Chief Secretary's letter of 30th April 1847 that the reference to him, to which he here replies, was made.

3. The Sub-Collector states that "no regular inquiry into Inam tenures generally has ever been made in the sub-division." Mr. Suart promises to *commence* this inquiry immediately, but he has little hopes of *concluding* it in any reasonable time without an Assistant.

4. Mr. Suart refers (paragraph 3) to certain Rules by Captain Wingate as a simple method for disposing of the Inams of district and village officers. To these Rules Mr. Suart can give no sort of clue, except that they were circulated in Sholapore, and are "not on the records of the sub-division." It is probable that the Rules of which Mr. Suart's remembrance is so very indistinct are those proposed in paragraph 17 of Captain Wingate's letter of 17th September 1841, approved by Government in the Acting Secretary's letter of 30th December of that year. But as the allowances of these hereditary servants of Government contain Huks and cash allowances as well as land, to settle the amount of land by itself would, I submit, be a very imperfect measure, and one fraught with much useless labour; as in cases where the land, though excessive, as compared with its original extent, does not give

excessive remuneration to the officiating Patel or Koolkurnee, there would be no object in its reduction.

5. Neither can I concur in the plan of universal attachment proposed in paragraph 5 of Mr. Suart's letter of 3rd December; the exclusion of the courts of law from such cases in the Deccan, as shown in paragraphs 3 and 4 of your letter of 24th January, No. 474, appears to render any such measure unnecessary. Still the inquiry into Inams should not be deferred.

I have the honour to be, &c.

(Signed) E. H. TOWNSEND,  
Revenue Commissioner Southern Division.

*Rutnagherry Districts, Rev. Commr.'s Camp Koodook, 27th April 1848.*

No. 1654 OF 1847.

TERRITORIAL DEPARTMENT, REVENUE.

From R. SPOONER, Esq.,  
Collector of Ahmednuggur,

To E. H. TOWNSEND, Esq.,  
Revenue Commissioner Southern Division, Poona.

SIR,—In reply to your letter No. 2799, dated 17th instant, I beg to submit copy of the reply of the Sub-Collector (Mr. Suart) and the late Acting Sub-Collector (Mr. Tytler), Nos. 449 and 57, dated 3rd and 7th instant respectively.

2. My predecessor, in his letter No. 650, dated 15th June last, has already replied to the Government letter to your address No. 1220, dated 30th April last.

I have the honour to be, &c.

(Signed) R. SPOONER,  
Collector.

*Circuit Kutcherec, Camp Neywasa, 10th December 1847.*

No. 449 OF 1847.

To R. SPOONER, Esq.,  
Collector, Ahmednuggur.

SIR,—In reply to your endorsement No. 1550, of the 22nd ultimo, I have the honour to state no regular inquiry into Inam tenures generally has ever been made in the sub-division.

2. In accordance with the wishes of Government, a general and systematic inquiry will be immediately commenced, but I can hardly hope, without an Assistant, to bring it to a conclusion in any reasonable time.

3. The inquiry into the Inams of village and district officers will be a very simple one, if, as I imagine, Captain Wingate's Rules are to form the basis of it; but a copy of these Rules should be supplied, as there is not one on the records of this office.

4. When in charge of the Sholapore Zillah, a form of statement, based on Captain Wingate's Rules, was circulated to all Mamlutdars, to be filled up. I shall be glad to have a copy of this form.

5. As it appears, from Mr. Tytler's letter No. 225, of 9th June last, that the regulated time of prescription lapses in A. D. 1848, I beg to suggest that an attachment be placed on all Inams of every description till such time as the inquiry is completed. This will be no hardship, as Government may allow the owners to enjoy the proceeds of them on their giving security to refund the amount if their claims are disallowed.

I have the honour to be, &c.

(Signed) E. M. SUART,  
Sub-Collector.

*Circuit Kutcheree, Camp Pimplegaum Buswunt, 3rd December 1847.*

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No. 57 OF 1847.

TO R. SPOONER, Esq.,  
Collector, Ahmednuggur.

SIR,—In reply to your letter No. 1609, of the 3rd instant, I have the honour to inform you that there never has been any inquiry held into Inam tenures generally in the Sub-Collectorate of Nassick; doubtful claims alone have been disposed of.

I have the honour to be, &c.

(Signed) C. E. F. TYTLER,  
First Assistant Collector.

*Seroor, 7th December 1847.*

(True copies)

(Signed) R. SPOONER,  
Collector.

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No. 489 OF 1848.

The Collector is requested to state specifically what "Rules" (by Captain Wingate) are alluded to in paragraph 3 of the Sub-Collector's letter of 3rd December last, appended.

(Signed) E. H. TOWNSEND,

Revenue Commissioner Southern Division.

*Poona Districts, Rev. Commr.'s Camp, Soopa, 8th February 1848.*

No. 345 OF 1848.

I beg to annex the Sub-Collector's reply to the above endorsement, No. 134, dated 19th instant.

(Signed) R. SPOONER,  
Collector.

*Ahmednuggur, Collector's Office, 25th February 1848.*

No. 134 OF 1848.

The Sub-Collector has the honour to state (in answer to the Collector's endorsement No. 249, of 14th instant) that a copy of Captain Wingate's Rules not being on the records of the sub-division, he is unable to give any detailed information about them, but suggests a reference be made to any of the Officers on the Survey, who were formerly employed either in the Poona or Sholapore Zilla, as they will doubtless have copies by them.

(Signed) E. M. SUART,  
Sub-Collector.

*Nassick, Sub-Collector's Office, 19th February 1848.*

No. 831 OF 1848.

The Collector is requested to call on the Sub-Collector to afford some specific reference to the Rules alluded to in paragraph 3 of his letter No. 449, dated 3rd December last, to admit of their being traced in this office.

(Signed) E. H. TOWNSEND,

Revenue Commissioner Southern Division.

*Ahmednuggur Districts, Rev. Commr.'s Camp, Ankola, 6th March 1848.*

No. 499 OF 1848.

I beg to annex the Sub-Collector's reply to the above endorsement No. 207, dated the 15th instant.

(Signed) R. SPOONER,  
Collector.

*Ahmednuggur, Collector's Office, 21st March 1848.*

No. 207 OF 1848.

The Sub-Collector, in answer to the Collector's endorsement No. 441, of 9th instant, begs to refer to his letter No. 449, of 3rd December 1847, in which it is stated a copy of Captain Wingate's Rules is not on the records of the sub-division; a reference to them will doubtless be found by the Revenue Commissioner in the Survey Reports on the Southern Districts of the Sholapore Zilla.

(Signed) E. M. SUART,  
Sub-Collector.

*Circuit Kutcheree, Camp Satpoor, 15th March 1848.*

No. 2931 OF 1848.

TERRITORIAL DEPARTMENT, REVENUE.

To D. A. BLANE, Esq.,

Revenue Commissioner in Charge Southern Division.

SIR,—In acknowledging the receipt of Mr. Townsend's letter No. 1413, dated the 27th ultimo, forwarding one from the Collector of Ahmednuggur, with enclosures, having reference to the inquiry into Inam tenures in the Sub-Collectorate of Nassick, I have been instructed by the Right Honorable the Governor in Council to observe that Mr. Townsend has not forwarded to Government Mr. Tytler's separate report, alluded to in paragraph 4 of his letter of the 26th November last, No. 2913; you are, therefore, requested to call upon Mr. Tytler for it.

2. Government has now under consideration a set of Rules drawn up by Mr. Hart for deciding claims to Inams. When considered and approved of, revised copies will be sent to the Collectors of Khandeish, Ahmednuggur, Poona, and Sholapore, for their guidance.

3. His Lordship in Council has desired me to notice that Mr. Suart's plan for attaching every Inam is as unnecessary as it is objectionable.

I have the honour to be, &c.

(Signed) H. E. GOLDSMID,  
Secretary to Government.

*Bombay Castle, 22nd May 1848.*

No. 2375 OF 1848.

TERRITORIAL DEPARTMENT, REVENUE.

To W. COURTNEY, Esq.,

Acting Secretary to Government, Bombay.

SIR,—I have the honour, with reference to paragraph 7 of Mr. Chief Secretary Pringle's letter No. 1219, of

1. From the Collector of Ahmedabad, No. 255, of 3rd September 1847, with appendix.
2. Ditto Kaira, No. 432, of 23rd December 1847, with accompaniments.
3. To ditto, No. 2043, of 29th idem.
4. From ditto, No. 113, of 8th March 1848.
5. Ditto Broach, No. 264, of 13th December 1847.
6. Ditto Surat, No. 62, of 23rd February 1848, with accompaniment.
7. Ditto Surat, No. 203, of 17th July 1848, with accompaniments.
8. Ditto Surat, No. 296, of 4th November 1848, with ditto.
9. Ditto Tanna, No. 853, of 22nd Oct. 1847.
10. To ditto, No. 455, of 15th March 1848.
11. From ditto, No. 494, of 5th June 1848, with accompaniment.
12. Ditto Khandeish, No. 595, of 10th May 1847.
13. Ditto Khandeish, No. 1796, of 22nd November 1818, with enclosure.
14. Ditto Agent at Colaba, No. 125, of 4th March 1848.

30th April 1847, to submit a correspondence, as per margin, with the Collectors of this Division, relative to the state of the investigation into the titles to lands held wholly or partially exempt from assessment.

2. In the Ahmedabad Zilla it will be seen that there are three hundred and eleven cases in which notices have been issued remaining to be disposed of, and 127,202 beegas 19 w. 10 ww. regarding which no investigation has been instituted. The titles to 8,980 beegas 12 w. 8 ww. are represented to have been admitted, but not as yet, with a few exceptions specified in the endorsement appended to the Collec-

tor's letter, reported for the confirmation of Government.

3. In the Kaira Zilla the state of the inquiry is exhibited in a statement accompanying the Collector's letter No. 432. This, it will be observed, requires further explanation, which has been called for and will be furnished hereafter; but extracting the figures in the two last columns as a general sketch, the extent of land for which notices have been issued is stated at 15,031 beegas 17 w. 15 ww., and that remaining entirely uninvestigated at 399,837 beegas 16 w. 2 ww.

4. In the Broach Zilla the Collector estimates the uninvestigated lands at 323,859 beegas 1 w. 3 ww., as specified in a table inserted in his letter.

6. In the Surat Zilla the Collector represents that he cannot ascertain that the Survey inquiries were carried further than to determine the actual occupancy, and the only express inquiry since instituted is stated to have been one into the " Vechanee" and " Guranee" lands in the Parchole Purgana. With regard to the Survey inquiries, the nature of them in the Broach Collectorate has been reported upon in the correspondence ending with Government letter No. 4618, of 15th November 1847, and the presumption would seem to be in

favour of their having been conducted on the same principles in this Zilla. The extent of the alienated land is exhibited in a statement accompanying the enclosure No. 203, from which it will appear that the total uninvestigated, inclusive of 917 beegas 12 w. 6 ww. for which notices have been issued, amounts to 105,828 beegas 1 w. 8 ww.

6. In the Tanna Zilla there are represented to be 1,432 notices still awaiting decision, including, as explained in the enclosure No. 494, the whole of the lands entered as alienated in the accounts not hitherto investigated, the extent of which in the several measures in use in this Zilla is detailed in a statement thereto appended. The practice of attaching Inams on the death of incumbents is alluded to by him in paragraph 4, in which he explains that Inam villages are excepted on the grounds, as I understand him, of the recognition of the title inferred to have been conveyed by the grant of compensation for liquor farms. The titles to these villages are represented, however, (paragraph 4, No. 494,) to have been separately reported to Government. With respect to successions, the instructions in Government letter No. 1345, of 4th May 1847, would seem to be sufficiently distinct, and according to the tenor of a late letter, No. 1314, of 26th February last, relative to certain titles admitted in the Kaira Zilla, it is apparently the intention of Government that the inquiry into unrecognised titles is in all instances to be proceeded with in the form of notices according to the Regulations, and the whole of the papers, with translations, to be appended to the Collector's report when the title is admitted.

7. In the Khandeish Collectorate the state of this inquiry has lately been under the consideration of Government, in the correspondence replied to in Mr. Secretary Townsend's letter No. 5346, of 14th November 1845, the arrears uninvestigated being stated in the accompaniment to the enclosure No. 1796 at 135,985 beegas 18½ w.

8. In the Colaba Territory the investigation remains to be made, but the extent of the alienations specified in the Agent's letter is not very great, and the Agent would seem to anticipate his being able to accomplish it during the intervals of leisure from his other duties.

I have the honour to be, &c.

(Signed) D. A. BLANE,  
Revenue Commissioner Northern Division.

*Rev. Commr.'s Camp, Khandeish Districts,  
Nyadongree, 5th December 1848.*

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No. 255 OF 1847.

## TERRITORIAL DEPARTMENT, REVENUE.

From E. G. FAWCETT, Esq.,

Collector of Ahmedabad,

To D. A. BLANE, Esq.,

Revenue Commissioner Northern Division.

*Ahmedabad, 3rd September 1847.*

SIR,—I have the honour to acknowledge the receipt of the extract of Government letter No. 1219, dated 30th April 1847, forwarded under your endorsement No. 705, dated 5th May last, requesting information as to the position in which the proceedings for investigating the validity of rent-free titles now stand, and beg to inform you that originally 135,393 beegas 14 w. 10 ww. of land in Khalsa villages, partially or wholly exempt from revenue, had to be inquired into, with respect to which 3,033 notices have been issued and 2,722 cases decided, affecting land to the extent of 18,190 beegas 15 w., of which 8,980 beegas 12 w. 8 ww. have been allowed as entitled to be exempt, or resumed after a certain period, and 9,464 beegas 17 w. 13 ww. have been resumed. 3,923 beegas 1 w. 18 ww. are now under notice, comprising 311 cases which remain to be decided, and the rest remains as it was. By far the greater portion of the cases disposed of were decided upon in the years about 1828 to 1832; but of late years there have been so few Assistants, and urgent current business has so much increased, that it has not been practicable to make much progress in this work, which, in my humble opinion, would require the undivided attention of an experienced officer for some years.

2. I do not, however, see any probability of Government having at disposal any covenanted officers to appoint, and the only feasible mode of forwarding this investigation that occurs to me is to authorise Mamlutdars to decide upon titles to exemption.

I have the honour to be, &amp;c.

(Signed) E. G. FAWCETT,  
Collector.

No. 1491 OF 1847.

The Collector is requested to state if the admission of the titles to 8,980 beegas 12 w. 8 ww. have been reported to Government, and if so, under what dates.

(Signed) D. A. BLANE,

Revenue Commissioner Northern Division.

*Revenue Commissioner's Office, Poona, 13th September 1847.*



No. 367 OF 1847.

In reply, I have the honour to state that I cannot find, from the records, that any reports of cases of this nature have been made previous to the time at which I assumed charge of the Collectorate.

The following is a list of reports since made :—

Two cases, forwarded with letter No. 60, dated 8th May 1844, and exemption sanctioned during the lives of the incumbents by Government letter dated 31st August 1844, forwarded under the Revenue Commissioner's endorsement dated 2nd September 1844.

One case, No. 29 of 1844, forwarded with letter No. 286, dated 5th September 1846, confirmed by Government 30th December 1846. Revenue Commissioner's endorsement 2nd January 1847.

One case, No. 28 of 1845, with letter No. 301, dated 24th September 1846, confirmed by Government, dated 28th December 1846. Revenue Commissioner's endorsement No. 24, of the 4th January 1847.

One case, No. 59 of 1844, with letter No. 192, dated 26th June 1847.

Three cases, No. 208 of 1841, No. 21 of 1843, and No. 37 of 1843, with letter No. 302, dated 12th October 1847.

Four cases, Nos. 16, 17, 18, and 19 of 1847, with letters Nos. 333, 334, 335, and 336, dated 15th November 1847.

(Signed) E. G. FAWCETT,  
Collector.

*Ahmedabad Collector's Camp, Jolapoor, 15th December 1847.*

No. 432 OF 1847.

TERRITORIAL DEPARTMENT, REVENUE.

To D. A. BLANE, Esq.,

Revenue Commissioner Northern Division, Broach District.

SIR,—With reference to your circular endorsement No. 705 of 1847, dated the 5th of May last, requesting me to furnish the information called for by Government, in the extract from a letter to your address as to the position in which the proceedings for investigating the validity of rent-free titles stand in this Collectorate, I have the honour to submit the annexed statement exhibiting the quantity of arable Government lands and alienated lands in this Zilla. With respect to the latter, the statement shows the quantity resumed by Government under Regulations I. of 1823 and XVII. of 1827, and that restored subsequently, after resumption, to the different claimants, on account of the passing of Regulations X. of 1831 and VI. of 1833, by the Collector and his Assistants; by the decrees awarded under the former quoted enactments

| Number. | Names of Talookas. | Lands resumed by Government.             |                              |                                 | Restored out of the Resumed Lands in Column 4. |   |                          |  |   |               | Total.        |
|---------|--------------------|--|------------------------------|---------------------------------|--|---|--------------------------|--|---|---------------|---------------|
|         |                    | Total Government Arable Lands in Beegus. | Under Regulation I. of 1823. | Under Regulation XVII. of 1827. | Total.   | Under Regulations X. of 1831 and VI. of 1833. | By order of Mr. Lausden. | By the Decrees passed, under Regulations I. of 1823 & XVII. of 1827, having been reversed in Appeal. | By a Special Order of Government sanctioning restoration of the Blat Lands. | Life Grants.  |               |
| 1       |                    |  | 2                            | 3                               | 4  | 5   | 6                        | 7  | 8   | 9             | 10            |
|         |                    | Beegus w. ww.                            | Beegus w. ww.                | Beegus w. ww.                   | Beegus w. ww.                                  | Beegus w. ww.                                 | Beegus w. ww.            | Beegus w. ww.  | Beegus w. ww.   | Beegus w. ww. | Beegus w. ww. |
| 1       | Muhoonda .....     | 97,872 11 6                              | 6,855 10 10                  | 110 15 0                        | 6,966 5 10                                     | 307 19 10                                     | 1,628 12 0               | 35 15 0  | 2,634 4 0   | ....          | 4,606 10 10   |
| 2       | Thasra .....       | 75,507 16 5                              | 154 5 0                      | 1761 5 0                        | 1,915 10 0                                     | 56 15 0                                       | 391 10 0                 | ....   | ....  | ....          | 448 5 0       |
| 3       | Kuppurwunj .....   | 89,843 11 1                              | 718 0 0                      | 22 0 0                          | 740 0 0  | ....  | 106 15 0                 | ....   | ....  | ....          | 106 15 0      |
| 4       | Neriaal .....      | 91,759 18 18                             | 12 0 0                       | 2,789 16 15                     | 2,801 16 15                                    | 1,712 15 10                                   | ....                     | ....   | ....  | 110 5 0       | 1,853 0 10    |
| 5       | Napar .....        | 56,208 17 9                              | 10 0 0                       | 1,491 17 10                     | 1,501 17 10                                    | ....  | 869 10 0                 | ....   | ....  | ....          | 869 10 0      |
| 6       | Borsud .....       | 54,746 18 3                              | 28 0 0                       | 4,061 8 15                      | 4,089 8 15                                     | 961 15 0                                      | ....                     | ....   | 287 0 0   | ....          | 1,218 15 0    |
| 7       | Matur .....        | 104,401 10 4                             | 2,712 6 0                    | 2,826 17 8                      | 5,569 3 8                                      | 1,330 12 15                                   | 280 10 0                 | ....   | 629 5 0   | ....          | 2,210 7 15    |
|         | Total..            | 570,311 3 6                              | 10,520 1 10                  | 13,064 0 8                      | 23,584 1 18                                    | 4,399 17 15                                   | 3,276 17 0               | 35 15 0  | 3,550 9 0   | 110 5 0       | 11,373 3 15   |

*Kaira Collector's Circuit Katchere, Camp Muhoonda, 23rd December 1847.*

*Rent-free Titles to Lands stand in the Kaira Collectorate.*

| Lands whose Tenures remain to be investigated. |                      |               |  |  |  |   | Remarks.  |
|--|----------------------|---------------|--|--|--|---|---|
| Salmee Suwadee.                                | Nukree or Rent-free. | Total.        | Vechnaea, Guraneea, Nukree, Salmee, Suwadee. | Wanta, Pusacta, and other Miscellaneous Tenures. | Quantity of Lands on which Notices have been issued. | Quantity of Lands on which no Notice has been served. |   |
| 11   | 12                   | 13            | 14   | 15   | 16   | 17  | The total of columns 14 and 15 and 16 and 17 correspond with column 13. |
| Beegas w. ww.                                  | Beegas w. ww.        | Beegas w. ww. | Beegas w. ww.                                | Beegas w. ww.                                    | Beegas w. ww.  | Beegas w. ww.   |   |
| 60,859 0 5                                     | 19,792 3 5           | 80,651 3 10   | 60,238 13 10                                 | 20,412 10 0                                      | .  | 80,651 3 10   |   |
| 31,710 4 0                                     | 20,178 2 5           | 51,888 6 5    | 25,262 9 5                                   | 26,625 17 0                                      | 10,436 12 10   | 41,151 13 15  |   |
| 33,848 6 15                                    | 12,101 2 0           | 45,949 8 15   | 32,223 6 12                                  | 13,726 2 0                                       | 4,595 5 5  | 41,354 3 10   |   |
| 56,301 8 5                                     | 33,684 8 10          | 89,985 16 15  | 57,481 6 5                                   | 32,504 10 10                                     | ...  | 89,985 16 15  |   |
| 25,094 4 1                                     | 11,980 7 10          | 37,071 11 11  | 26,564 8 6                                   | 10,510 3 5                                       | ...  | 37,074 11 11  |   |
| 18,633 11 15                                   | 11,801 5 10          | 30,434 17 5   | 19,781 18 5                                  | 10,652 19 0                                      | ...  | 30,434 17 5   |   |
| 53,092 11 0                                    | 25,792 18 16         | 78,885 9 16   | 68,661 3 14                                  | 10,224 6 2                                       | ....   | 78,885 9 16   |   |
| 279,539 6 1                                    | 135,330 7 16         | 414,869 13 17 | 290,213 6 0                                  | 124,656 7 17                                     | 15,031 17 15   | 399,837 16 2  |   |

(Signed) J. WENN, Collector.

having been reversed in appeals to the Zilla Courts; by Sunuds granted by Mr. Lumsden; and by a special order from Government exempting Bhat lands from assessment.

2. In cases where the titles were found defective, or the tenures not recognised by the Regulations then in force, the lands were continued as a matter of favour to the parties, either rent-free or on the payment of a slight Beegotee assessment for a certain number of years, and to be escheated to Government at the expiration of that period.

3. On the passing of the Regulations X. of 1831 and VI. of 1833, parties who had lost their lands under the former Regulations made petitions for their recovery, on the ground of the enjoyment for the prescribed periods of sixty and thirty years; whereupon, the Collectors and their Assistants reviewed and annulled the former proceedings in a great many cases, and passed decrees in favour of the parties, allowing them to hold the lands either rent-free or on the payment of a slight Beegotee. But the Collectors' decisions do not appear to have been reported for the confirmation of Government, as required by Sections XLV. and XLVIII. of Regulation XVII. of 1827.

4. It does not appear from the records of this office whether Mr. Lumsden had any authority from Government to grant Sunuds authorising parties to hold lands either rent-free or on the payment of a slight Beegotee, quit-rent, &c. for a number of years, &c. Cases now coming up for investigation are, however, to be disposed of, without reference to that officer's decision, on their own merits, according to the Government letter of 1st June 1832, to the address of the Principal Collector of Ahmedabad, as directed in your letter of the 4th August 1846, No. 1373.

5. The small quantity of land entered in the statement as having been allowed to be enjoyed during the lifetime of the parties must have been, in all probability, granted through a compassionate consideration of their distressing circumstances, and will sooner or later be escheated to Government.

6. With regard to the lands whose tenures remained to be investigated, notices have been served on a small quantity without any previous inquiry, and merely because they are the property of private individuals. In a great many cases the Salamee or quit-rent and the Suwadeea levied on alienated lands is just the same, or nearly equal to what they would yield if they were Government lands.

7. The tenures in column 15 being for the most part recognised by Regulation XVII. of 1827, the titles to lands held under them cannot be disputed.

8. Several cases have within the last three years been decided in favour of the owners under Regulations X. and VI. of 1833. The decision in only one has been reported for the sanction of Government, and the proceedings in others are now being translated, and will be forwarded as soon as possible.

9. I beg to forward a copy of a report from my First Assistant, Mr. Compton, dated the 23rd of September last, No. 36, on the subject.

I have the honour to be, &c.

(Signed) J. WEBB,  
Collector.

*Kaira Collector's Camp, Muhoonda, 23rd December 1847.*

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No. 36 OF 1847.

To J. WEBB, Esq.,

Collector of Kaira.

SIR,—With reference to your endorsement No. 138 of 1847, dated 13th May, forwarding an extract from a letter from Government to the address of the Revenue Commissioner, inquiring what proceedings have been held up to the present time for investigating the validity of rent-free titles, I have now the honour to forward two reports on the subject from the Mamlutdars of Thasra and Kuppurwunj, and to submit the annexed English statement, which exhibits the total amount of the “alienated” lands in each Purguna, and the Government lands bearing assessment; the quantity of land which has been resumed, with that which has been restored after resumption; together with the lands on which notices have been served, but the claims to which have not been investigated.

2. The last column in the statement includes a large amount of land, and some explanation appears necessary as to the cause of the delay in deciding the claims thereto. I find that all the notices on these lands were served (almost at the same time) in the year 1845, solely because they were “rent-free” lands, and without any previous inquiry as to the probability of their belonging to Government and not to the several occupants. When, therefore, my predecessor, Mr. Buchanan, began to investigate these claims, the people of the district declared their intention of deserting their villages, and it was found necessary to postpone the inquiry.

3. The Mamlutdars do not state whether the lands included in column 4 were restored to the occupants with the sanction of Government or not, and so much time has already been lost in obtaining answers from them, that I am unwilling to delay the transmission of this report by any further reference on the subject.

4. It appears that only three cases have been decided under Regulations X. of 1831 and VI. of 1833; in these the decision of the Collector was in favour of the occupant's right to the land. The proceedings were, consequently, forwarded for the sanction of Government, but have not yet been returned.

5. I may be permitted to mention that the Salamee and Suwadeea levied on two-thirds of the alienated lands in many cases equals the full assessment

which would be taken if the lands belonged to Government, and varies from 11 pies to Rs. 7-12-0 a beega.

6. I beg to forward herewith the Guzerathee statement, &c.

I have the honour to be, &c.

(Signed) T. A. COMPTON,  
First Assistant Collector.

*Kaira, First Assistant Collector's Office, 23rd September 1847.*

(True copy)

(Signed) J. WEBB,  
Collector.

No. 2043 OF 1847.

To J. WEBB, Esq.,

Collector, Kaira.

SIR,—I have the honour, with reference to the statement accompanying your letter No. 432, of 23rd instant, on the subject of the inquiry into the titles to exemption from assessment, to request a solution of the following doubts with respect to the manner in which the statement has been framed :—

I.—Are the figures in column 4 included in those in column 1, or additional to them ?

II.—Do columns 11 and 12 include the figures in column 10 ?

2. In elucidation of the totals in the statement, I would request an abstract in the annexed form.

3. A detailed statement showing the number of cases, extent and value of land, and authority by whom the decisions were passed in the instances embraced in column 5, is also requested ; and you will have the goodness to mention if Mr. Lumsden's Sunuds are of a prior or subsequent date to that of Regulation X. of 1831, and whether they had any reference to it, and to specify the date of the order referred to in column 8 of the statement. Adverting to your remark in paragraph 4, the Government letter therein quoted has reference, you will observe, solely to the operation of Regulation X. of 1831, and not to any proceedings by Mr. Lumsden which may have been conducted on the principle of a compromise authorised in Section XLVIII. of Regulation XVII. of 1827.

I have the honour to be, &c.

(Signed) D. A. BLANE,  
Revenue Commissioner Northern Division.

*Rev. Commr.'s Camp, Broach, 29th December 1847.*

## ABSTRACT.

|  | Beegas  | w. ww.      |
|--|---------|-------------|
| Government lands .....                           | 570,341 | 3 6         |
| Add (or including, as the case may be) resumed.. | 23,584  |             |
| Less since relinquished .....                    | 11,373  |             |
|  | —————   | 12,211 0 0  |
| Total under Government Assessment ..             | 582,552 | 3 6         |
| Paying quit-rent, Salamee, Suwadeco, &c. ....    | 279,509 |             |
| Rent-free Nukree .....                           | 135,330 |             |
|  | —————   | 414,869 0 0 |
| Total Rugba of the Zilla .....                   | 997,421 | 3 6         |

(Signed) D. A. BLANE,

Revenue Commissioner Northern Division.

*Rev. Commr.'s Camp, Broach, 29th December 1847.*

(True copy)

(Signed) D. A. BLANE,

Revenue Commissioner Northern Division.

No. 113 OF 1848.

TERRITORIAL DEPARTMENT, REVENUE.

To D. A. BLANE, Esq.,

Revenue Commissioner Northern Division.

SIR,—In acknowledging the receipt of your letter No. 383 of 1848, dated the 2nd instant, requesting an early reply to your communication No. 2043, of 29th December last, relative to the investigation into the validity of rent-free titles in my Collectorate, I have the honour to bring to your notice the circumstances which do not admit of an early compliance with your request.

2. The details called for in your reference above quoted are so numerous and minute as cannot be obtained without a most careful Gaumwar investigation, and a searching inquiry into the Hoozoor and district records. These have been set on foot, but suspended, owing to the yearly settlements which are now going on, and in which both my own and the Mamlutdar's establishments are now engaged. I beg, however, to assure you that every attention will be paid to hasten the transmission of my reply on the subject.\*

I have the honour to be, &amp;c.

(Signed) J. WEBB,

Collector.

*Kaira Collector's Camp, Matur, March 8th, 1848.*

No. 264 of 1847.

## TERRITORIAL DEPARTMENT, REVENUE.

To D. A. BLANE, Esq.,

Revenue Commissioner Northern Division, Surat.

SIR,—I have the honour to reply to your circular No. 1851, dated the 19th ultimo, calling for my early report upon the subject of the investigation into the validity of rent-free titles in this Collectorate, as required in paragraph 7 of Government letter No. 1219 of the 30th April last.

2. For an analysis of the investigation which the Talookas of Broach, Wagra, Unklesur, and Hansote appear to have undergone at the hands of the Committee of the Revenue Survey of Broach, under Major Monier Williams, in regard to titles to alienated lands, I beg to refer you to my letter No. 163 of the 9th August last. The conclusion at which I arrived when submitting that letter, the result of my inquiry upon the subject, was that the labours of the Survey Committee had left nothing to be desired in the four Talookas named; and that little further appeared requisite than a proper application of the Regulations and Rules of Government, as lapses in the investigated titles occur, or have since occurred.

3. Your endorsement No. 1830 of the 17th ultimo, upon Government letter No. 4618 of the 15th idem, calls upon me to institute such further inquiries as may remove all doubt as to the fact of no similar investigation having been made in the Ahmode and Jumboosur Talookas, a fact which I deduced in the 10th paragraph of my letter above referred to, as well from the Honorable President's Minute of the 25th April 1821, as from local inquiries made by myself.

4. Of this fact there is, I would respectfully remark, no doubt whatever. The Talookas of Jumboosur and Ahmode, as well as the small Mahal of Dehej (not noticed in my letter of the 9th August last), have literally undergone no investigation whatever into the alienated possessions hitherto contained in those districts, if I except a great many "notices" issued under Section XL. Regulation XVII. of 1827, which have never, upon comparison, undergone any form of inquiry. The large proportion of alienations, on the other hand, borne against the uninvestigated Talookas, would certainly appear to invite inquiry without further delay, and if the proportion of resumptions\* should

\* The following I have abstracted from the Reports upon the Talookas of Unklesur, Hansote, Broach, and Wagra, published in Vol. III. of the Bombay Revenue Selections, beginning at page 635 :—

| <i>Unklesur.</i>  |  | Beegas | w. ww. |
|---|--|--------|--------|
| Total alienated lands (including the resumptions) . . . . . |  | 36,470 | 18 0   |
| Resumed by the Survey 6,252 beegas 4 w., or 17 per cent.    |  |        |        |
| <i>Hansote.</i>   |  |        |        |
| Total alienated lands . . . . .                             |  | 42,784 | 10 0   |
| Resumed by the Survey 10,580 beegas 4½ w., or 24½ per cent. |  |        |        |



approach those brought about by the Survey Committee in the other districts, the end would seem to justify the inquiry, even should the latter be accompanied by a present charge.

5. The titles still open to investigation may be classed under two heads, viz. tenures recognised as prescriptive by Regulation XVII. of 1827, Appendix A, and "service tenures," resumable under "such Rules as Government may think proper to issue from time to time." (Regulation VI. of 1833, Clause 3rd.) To these I have reason to believe may be added, but in an unknown proportion, "Sirkar lands alienated since the Government obtained possession of the country, and without its permission, to which the prescriptive period of thirty years' enjoyment does not extend." (Vide the same Regulation, Clause 2nd.) The following abstract, taken from the roll of alienated lands throughout the Zilla, indicates pretty correctly the relative proportion in money's worth of these two classes of alienations, and the sub-division,—the statement shows the respective quotas borne by the investigated and uninvestigated districts:—

*1st Class, viz. Hereditary Tenures, recognised by Appendix A of Regulation XVII. of 1827:—*

|   |              |    |   |
|---|--------------|----|---|
| I.—"Wanta" or hereditary possessions of Grassias..  | Rs. 2,82,012 | 6  | 7 |
| II.—"Vechanee" and "Gurānee," included by Regulation X. of 1831.....  | 44,317       | 14 | 6 |
| III.—"Hareea," or lands assigned as blood-money by Patels of villages, to secure immunity from retaliation, supposed to be identical with "Baria," in Appendix A).                                  | 2,867        | 12 | 3 |
| IV.—"Dewasthan," or lands held in prescriptive endowment of Hindoo temples .....  | 28,528       | 0  | 0 |
| V.—"Wuzeefa Khyrat," ditto ditto of Mahomedan shrines (included under the general term of "Pusaceta" in Appendix A. (See definition given at page 677, Vol. III. of Bombay Revenue Selections)..... | 32,854       | 14 | 6 |

Total ...Rs. 3,90,580 15 10

*2nd Class, viz. Service Tenures, resumable at the pleasure of Government:*

|   |              |    |    |
|---|--------------|----|----|
| I.—"Pusaceta Nukra," or lands assigned for the support of Hindoo individuals .....      | Rs. 1,37,541 | 15 | 2  |
| II.—"Dhurmadaee" (analogous to the foregoing, or lands held by Hindoo mendicants) ..... | 2,115        | 10 | 10 |

Total....Rs. 1,39,657 10 0

|  | Broach (including Wagra). | Beegas | w. ww. |
|--|---------------------------|--------|--------|
| Total alienated lands .....                                    | 128,731                   | 2      | 0      |
| Resumed by the Survey 34,019 beegas 7w., or 26½ per cent. .... |                           |        |        |
| Grand total alienated lands .....                              | 207,986                   | 10     | 0      |
| Ditto resumptions .....  | 50,851                    | 15     | 10     |
| Or 24 per cent.  |                           |        |        |

*Statement showing the Sub-division or Distribution of the above.*

| Nature of Tenure.          | Uninvestigated by the Survey Committee. |             |              |                      | Investigated and determined by the Survey Committee. |             |             |               |               |
|----------------------------|---|-------------|--------------|----------------------|--|-------------|-------------|---------------|---------------|
|                            | Jumboosur.                              | Ahmode.     |              | Dehej.               | Broach.  |             | Wagra.      | Unklesur.     | Hansote.      |
|                            | Rs. a. p.                               | Rs. a. p.   | Rs. a. p.    | Rs. a. p.            | Rs. a. p.  | Rs. a. p.   | Rs. a. p.   | Rs. a. p.     | Rs. a. p.     |
| <b>Hereditary Tenures.</b> |   |             |              |                      |  |             |             |               |               |
| 1. Wanta .....             | 1,10,632 6                              | 1 21,143 12 | 8 10,115 5   | 5 26,045 11          | 0 51,243 4   | 4 36,855 10 | 3 25,976 4  | 10 36 4       | 6 186 6       |
| 2. Vechanea and Guranea..  | 17,725 9                                | 6 21,366 1  | 5 4,976 12   | 8 3 415 14           | 9 1,407 8  | 4 8,423 11  | 9 2,029 14  | 10 1,587 2    | 0 1,746 11    |
| 3. Hareea .....            | 2,054 9                                 | 3 397 4     | 3 124 15     | 4 17,040 8           | 6 39,252 13  | 11 58,668 1 | 9 43,054 8  | 0 32,248 10   | 11 3 4,339 4  |
| 4. Dewasthan .....         | 10,102 15                               | 1 3,532 1   | 9 1,752 11   | 3 4 17,040 8         | 6 39,252 13  | 11 58,668 1 | 9 43,054 8  | 0 32,248 10   | 11 3 4,339 4  |
| 5. Wuzeeia Khyrat .....    | 11,608 13                               | 6 1,752 11  | 3 4 17,040 8 | 6 39,252 13          | 11 58,668 1  | 9 43,054 8  | 0 32,248 10 | 11 3 4,339 4  | 7 3 4,339 4   |
| Total.....Rs.              | 1,52,124 5                              | 5 48,191 15 | 4 17,040 8   | 6 39,252 13          | 11 58,668 1  | 9 43,054 8  | 0 32,248 10 | 11 3 4,339 4  | 7 3 4,339 4   |
| <b>Resumable Tenures.</b>  |   |             |              |                      |  |             |             |               |               |
| 1. Pusaeeta Nukra .....    | 79,477 12                               | 7 20,810 15 | 3 5,715 5    | 8 7,543 11           | 5 10,549 1   | 0 5,414 0   | 11 8,031 0  | 4 30 6        | 6 76 4        |
| 2. Dhurmadaee.....         | 252 2 10                                | 238 1 10    | 7 13 10      | 1,458 8 3            | 52 5 6   |             |             |               |               |
| Total.....Rs.              | 79,729 15                               | 5 21,049 1  | 1 5,723 3    | 6 9,002 3            | 8 10,601 6   | 6 5,444 7   | 5 8,107 4   | 5 3 40,355 15 | 4 3 40,355 15 |
| Grand Total.....Rs.        | 2,31,854 4                              | 10 69,241 0 | 5 22,763 12  | 0 48,255 1           | 7 69,269 8   | 3 48,498 15 | 3 40,355 15 | 4 3 40,355 15 | 4 3 40,355 15 |
| Rupees 3,23,859-1-3.       |   |             |              | Rupees 2,06,379-8-7. |  |             |             |               |               |

6. The last statement shows that the uninvestigated Talookas contain by far the greater proportion of the first four of the hereditary tenures enumerated, and about seventy-five per cent. of the principal "service" tenure, the most important of the whole in point of reversionary value.

7. The Honorable Court of Directors, in commenting upon the result of the Revenue Survey of the Unklesur and Hansote Purgunas, make use of the following words:—

"It appears to us, as far as we are enabled to draw an inference from the information you have afforded, that the alienated lands open to resumption divide themselves into two sorts,—those which have been granted for service no longer required, and those which have been fraudulently withdrawn from the assessment." (Vide revenue letter to Bombay, 13th February 1822, page 644, Vol. III. of Revenue Selections.)

This would appear to refer to the whole of those lands held as well under "Pusaeta Nukia" tenure as under "Pusaeta Chakrea," or specific village "service" tenure (charitable allowances to *individuals*, which is the meaning of Pusaeta Nukia, being everywhere distinct from endowments of religious *establishment*). Instances of the resumption of Dewasthan Pusaeta do occur, (see paragraph 198 of the revenue letter from Bombay of the 10th June 1815, page 619,) "where the Pusaeta has been unusually great"; but the same paragraph mentions that this tenure was very generally respected, and the non-interference principle lately inculcated by Government with respect to Dewasthan would also probably further protect alienations under that tenure. On the other hand, "the Pusaeta lands of Bhats, Brahmins, or others who render no service whatever to the village in which the land lies, or who reside beyond the Company's territories, have also generally been resumed." These resumptions come under Pusaeta Nukia.

8. Of the hereditary class of tenures, it is difficult to hazard a conjecture as to what might be resumed by an early inquiry. The same letter quoted in the last paragraph gives the following account of the first two, viz. "Wanta" and "Vechanee Guranee" (vide paragraph 191):—

"The most important alienation was the Wanta lands held by the Grassias. This description of tenure dates its origin from the remotest period, and has been therefore universally recognised and confirmed to the proprietor for ever. The same feelings which influenced the Grassia proprietors tenaciously to assert their right to the *old* Wanta operated in a manner very creditable to the character of this class of our subjects, voluntarily to determine them to acknowledge the right of Government to resume whatever quantity the Survey might establish to have been improperly alienated. Under the operation of this equitable principle, the whole of the Vechanee, Guranee, and Vulludanee\* lands, which had gradually assumed the denomination of *new* Wanta and Wanta, have been resumed in these villages."

The 196th paragraph further details the manner of redeeming the Vechanee

\* "Vulludanee" is a modification of "Guranee," and relates to specific as the latter term does to indefinite mortgage.

Guranea, viz. by a pecuniary compromise; and some similar course might possibly still offer in the uninvestigated Talookas.

9. Paragraph 199 also mentions the tenure denominated "Hareea," or blood-land, which it is said was very generally resumed, but upon what grounds is not stated. A reference to the statement already given shows that the Vechanea, Guranea, and Hareea tenures are at this day almost exclusively conferred to the uninvestigated Talookas.

10. The "Wuzcefa Khyrat" is analogous to Dewusthan, the one being a Mahomedan and the other a Hindoo term for lands originally bestowed with one and the same object, the support, namely, of religious establishments. I do not anticipate that much would be resumable out of this class of lands, nor indeed any, except in cases where the alienation was found to be continued to the benefit of individuals rather than of establishments.

11. With regard to the manner of dealing with the inquiry yet unperfected in the Zilla, it would be presumptuous in me to offer an opinion at this stage of the question. Regarding, however, the signally unsuccessful result of the desultory attempts hitherto made from time to time for ascertaining the rights of Government, there would appear to be no chance of arriving at anything satisfactory, if the investigation is to be resumed by the unassisted agency of the present establishment of the Zilla at the point where the Survey Committee's inquiry ceased. I find, indeed, that during the last ten years from three hundred to four hundred "notices" (under Section XL. Regulation XVII. of 1827) have been issued for the trial of doubtful claims, but that not more than three of these have been brought to issue, one of the latter being the case laid before you with my letter No. 147, of the 14th July last, which case itself was of several years standing. The utmost that can reasonably be looked for from the permanent establishment would appear to be a strict and uniform application of the Rules to lapses occurring in resumable tenures in those Talookas where the Survey Committee have already paved the way.

12. With regard to the arrears of notices referred to in the foregoing paragraph, I cannot undertake to state that there is the least probability of ever bringing them to issue in the ordinary course. Each case, indeed, would be equivalent to a civil suit, (conducted as it is directed they should be in Section XLII. Clause 1st, Regulation XVII. of 1827,) with the concomitant delay, expense of process, and ultimate right of appeal appertaining to civil process; and such an investigation, even if practicable, in addition to the other current business of a Collector and Magistrate's Office, would be slow and uncertain, and wholly inadequate to meet the end in view. In fact, nothing more feasible suggests itself than that a competent Committee (of which the Collector might be a member) should prosecute the investigation uninterrupted by the miscellaneous calls which interfere to distract the attention of the local officers from any exclusive subject of inquiry.

I have the honour to be, &c.

(Signed) J. M. DAVIES,

*Broach Collector's Camp, Bawa Rein, 13th December 1847.*

Collector.

No. 62 OF 1848.

## TERRITORIAL DEPARTMENT, REVENUE.

To D. A. BLANE, Esq.,

Revenue Commissioner Northern Division, Ahmedabad.

SIR,—With reference to your circular endorsement No. 705, dated 5th May 1847, on copy of an extract of a letter from Government, No. 1219, dated 30th April antecedent, on the subject of ascertaining exactly in what position the proceedings for investigating the validity of rent-free titles stand in the different Collectorates, I beg to state that I cannot find from the records of this office that any regular inquiry has ever been instituted into the validity of rent-free titles in this Zilla. The survey and measurement of the entire Purganas of Oolpar, Koorsud, Bulsar, Soopa, Parchole, Chowrasee, Parnera, and also six villages in the Bugwara Purgana, were completed by Major Newport and his Assistants, but I cannot ascertain exactly in what way the inquiry was conducted by that officer or his assistants into the title on which lands were held rent-free; but it would appear that the right of occupancy was admitted and recorded by the Officers of the Survey as they now stand on the accounts of this office; and they endeavoured only to discover whether parties thus claiming possession of rent-free lands actually held more land than they claimed a right to, or could show an apparent title to hold from Sunuds or length of time of possession. All land discovered as held over and above what parties were considered apparently entitled to was entered as Wudara, or excess, and in the Purganas of Oolpar, Koorsud, and Parchole, encroachments, whether on Sirkaree or Maafee lands, have in all instances been assessed, and the assessment on Wudara on the Sirkaree land in the Purganas of Soopa, Bulsar, and Chowrasee, surveyed by Major Newport, has been enforced, but not on Maafee lands. A portion, however, of the latter in the Chowrasee Purgana, has since, at different times, been assessed, and several notices were issued by Mr. Simson in 1841 in this Purgana; but in the Parnera Purgana, and in the seventeen villages of Bugwara, viz. six surveyed by Major Newport, and eleven by Hurreebhaee Oomeasunkur, no steps have been as yet taken to realize the rent due to Government on such Wudara lands, whether Sirkaree or Maafee. The Purganas of Chicklee, Walore, and Boharee were measured by Moonsiffs, under the directions of the late Mr. Morison, many years ago, and subsequently by order of the Principal Collector in 1836; but it would appear that no encroachments were discovered.

2. The Wudara on Sirkaree and Maafee lands, discovered by Mr. Kelly by his survey of the Sarbhone Purgana, and eleven villages of the Kurode, at intervals from 1832 to 1847, has, in every instance, been assessed and brought to the account of Government. From the above it would appear that in the Purganas of Walore and Chicklee, sixty-three villages of the Bugwara Purganas, and eighteen villages of the Kurode Purgana, no regular survey or measurement has taken place, although throughout the whole Collectorate

lands have at various times been resumed and assessed, both Sirkaree and Maafce, when instances of their being held without title have been brought to the notice of the Collector; and it would appear that Mr. Simson in the year 1841 directed that Wudara land to a great extent should be assessed, and the proceeds brought to the credit of Government, and in case payment should be refused, that notices should be issued in the usual manner, calling on the holders to prove their title under Regulation XVII. A. D. 1827. (Vide Jum-mabundee Report for 1840-41, No. 301, dated 21st September 1841, paragraph 23.)

3. Government, in its letter No. 1087 dated 12th April 1842, paragraph 14, called the attention of the Collector to the importance of immediately attending to this subject, lest the period that had elapsed might prove fatal to the claims of Government to its fair assessment, and Mr. Simson issued many hundred notices under the Regulations; but no great progress appears to have been made in this inquiry, probably, as suggested by Mr. Simson in the 25th paragraph of his Jum-mabundee Report for 1840-41, dated 21st September 1841, No. 301, from the various other important and pressing duties to which the attention of the Collectors was necessarily directed.

4. I may also observe that an inquiry was also made by Mr. Andrews, while Assistant Collector, in 1827, into the Vechanee and Guranee lands in Parchole, and his proceedings were approved and confirmed by Government.

5. I beg to annex a statement showing what has been already effected in regard to lands held in excess in this Collectorate, and to state that I have called the attention of Mr. Robertson, my First Assistant, to the necessity for immediately proceeding with this inquiry in the districts under his charge, and that I will without delay enter upon the same myself.

I have the honour to be, &c.

(Signed) P. STEWART,

*Surat Collector's Office, Camp Anjna, 23rd February 1848.* Collector.

*Statement showing the Purganas in the Surat Collectorate in which Survey and Measurement have been made.*

| Names of the Purganas.                          | Remarks.   |
|---|--|
| Oolpar .....<br>Koorsud .....<br>Parchole ..... | { Surveyed by Major Newport, and excess, when discovered, whether in Sirkaree or Maafce land, has been assessed and credited to Government.  |
| Soopa .....<br>Bulsar .....<br>Chowrasee .....  | { Surveyed by Major Newport, and the excess of Sirkaree land was then assessed, but not that of the Maafce. A portion, however, of the latter, in the Chowrasee Purgana, has since been assessed, and several notices were issued by Mr. Simson in 1841 in this Purgana. |

| Names of the Purgunas.   | Remarks.   |
|--|--|
| Parnera .....<br>Six villages of the Bugwara Purguna .....<br>Eleven ditto ditto ..... | { Surveyed by Major Newport, but the excess discovered has not been assessed either in Sirkaree or Maafce lands.<br>{ Surveyed by Hurreebhace Oomeasunkur, do. do.                       |
| Walore and Boharce .....<br>Chicklee .....   | { Surveyed and measured by Moonsiff by order of the late Mr. Morison, and subsequently by order of the Principal Collector in 1836, but no encroachments appear to have been discovered. |
| Surbhone .....<br>Eleven villages of the Kurode Purguna .....                          | { Surveyed at intervals from 1832 to 1847, by Mr. Kelly, Assistant Surveyor and Builder. Excess, when discovered, whether in Sirkaree or Maafce land, has been assessed.                 |

(Signed) P. STEWART,  
Collector.

*Swat Collr.'s Office, Camp Anjua, 23rd February 1848.*

No. 203 of 1848.

TERRITORIAL DEPARTMENT, REVENUE.

To D. A. BLANE, Esq.,  
Revenue Commissioner Northern Division, Poona.

SIR,—I have the honour to acknowledge the receipt of your letter dated 15th March last, No. 454, relative to the investigation into the titles of alienated lands, and requesting a statement of the extent of such lands in this Zilla, showing the extent investigated and confirmed, and that still remaining to be inquired into; and beg to submit the accompanying statement, which will afford all the information required by you.

2. In reply to your 2nd paragraph, I beg to state that the date of the Government letter alluded to in paragraph 4 of my letter of the 23rd February last, No. 62, is 17th November 1828, No. 2189, copy of which, together with that of the Collector's letter, to which it is a reply, I beg to annex, from which it will be seen that Government had authorised the Collector to fix the Salamee leviable on the Vechaneca and Gurancea lands in the Purguna of Parchole, on the death of the then incumbents, at one-half of the full village rate, as proposed by the Collector; but from inquiry, I find that this order has not been brought into effect, as by an order dated 2nd August 1837, of the late Acting First Assistant Collector, Mr. Liddell, then in charge of the Parchole Purguna, the Mamlutdar of that district was directed to act in reference to these lands according to Regulation X. of 1831, since which no measures have been adopted.

3. From column 8 of the accompanying statement, you will perceive that there are lands to the extent of 104,910 beegas 9 w. 2 ww. held rent-free, the validity of the titles of which remains to be inquired into. I have directed the Mamlutdars to prepare notices, and as they are prepared they are signed and issued to the parties, agreeably to the Regulations.

4. I have called upon the Mamlutdar of Mandvec to furnish a statement showing the extent of alienated land in that Purguna, which I will transmit as soon as possible.

I have the honour to be, &c.

(Signed) P. STEWART,  
Collector.

*Surat Collector's Office, 17th July 1848.*



*Statement showing the Amount of Alienated Land in Government Villages, in the Surat Zilla, including Pusaeeta Inam, Girass, Wuzeeffa, Vechaneea, Guraneea, Chakriat, Salamee, and Nukra, &c. Lands.*

| No. | Purgunas.       | Total Amount of Alienated Land. | Amount of Land resumed after due inquiry, under Regulation XVII. of 1827, the Title being found defective. | Present Total Amount of Alienated Land. | Amount of Land confirmed to the Holders after due inquiry, under Regulation XVII. of 1827, the Title being acknowledged valid. | Amount of Land under inquiry, on which Notices have been issued. | Amount of Land the validity to the Title of which remains to be inquired into, and on which Notices have not hitherto been issued. |
|-----|-----------------|---------------------------------|--|---|--|--|--|
| 1   | 2               | 3                               | 4  | 5                                       | 6  | 7  | 8  |
|     |                 | Beegas w. ww.                   | Beegas w. ww.  | Beegas w. ww.                           | Beegas w. ww.  | Beegas w. ww.  | Beegas w. ww.  |
| 1   | Oolpar .....    | 16,836 5 5                      | .....  | 16,836 5 5                              | 12 0 0   | 24 0 0   | 16,800 5 5   |
| 2   | Koorsud .....   | 33,814 1 10                     | 158 3 10   | 33,655 18 0                             | 1,268 10 15  | 403 16 10  | 31,983 10 15   |
| 3   | Chowrasee ..... | 20,040 3 15                     | 41 0 0   | 19,999 3 15                             | 15 0 0   | 53 2 5   | 19,931 1 10  |
| 4   | Kurode .....    | 4,051 7 5                       | .....  | 4,051 7 5                               | .....  | 33 10 15   | 4,017 16 10  |
| 5   | Walore .....    | 5,508 10 0                      | .....  | 5,508 10 0                              | .....  | .....  | 5,508 10 0   |
| 6   | Surbhone .....  | 2,737 5 0                       | .....  | 2,737 5 0                               | 112 18 5   | 11 0 5   | 2,613 6 10   |
| 7   | Soopa .....     | 6,390 8 5                       | .....  | 6,390 8 5                               | .....  | .....  | 6,390 8 5  |
| 8   | Parchole .....  | 5,501 13 2½                     | 11 0 15  | 5,490 12 7¾                             | 145 13 7¼  | 99 16 6½   | 5,245 2 14   |
| 9   | Chicklee .....  | 4,820 5 10                      | 32 4 0   | 4,788 1 10                              | 37 5 5   | 250 18 0   | 4,490 18 5   |
| 10  | Bulsar .....    | 2,824 10 10                     | .....  | 2,824 10 10                             | .....  | 29 9 0   | 2,795 1 10   |
| 11  | Parnera .....   | 1,945 16 15                     | 255 6 15   | 1,690 10 0                              | .....  | 7 5 5  | 1,683 4 15   |
| 12  | Bugwara .....   | 3,446 17 3                      | .....  | 3,446 17 3                              | .....  | 4 14 0   | 3,442 3 3  |
|     | Total ....      | 107,917 4 0½                    | 497 15 0   | 107,419 9 0¾                            | 1,591 7 12¼  | 917 12 6½  | 104,910 9 2  |

*Surat, Collector's Office, 17th July 1848.*

(Signed) P. STEWART,  
Collector.

No. 58 OF 1828.

## TERRITORIAL DEPARTMENT, REVENUE.

To J. BAX, Esq.,

Secretary to Government, Bombay.

SIR,—I have the honour to acknowledge the receipt of your letter of the 23rd August last, calling upon me to state the amount of Salamee which should be imposed on the Vechancee and Gurancee lands, in the Parchole Purguna, on the death of the present incumbents.

The land being of various qualities, the Government rent must depend upon the customary rates of the villages in which it is situated. The amount of Salamee is subject to no fixed rule; it rests altogether on the will of the Government. It seldom amounts to a full rent, and is often as low as one-sixth and one-seventh. In the present instance it is an entirely gratuitous act, and if settled at one-half of the full village rate, it will leave the possessor a saleable property in his estate, and give him no cause to be dissatisfied with the liberality of Government.

I have the honour to be, &amp;c.

(Signed) W. STUBBS,

Collector.

*Surat, Collector's Office, 10th November 1828.*

No. 2189 OF 1828.

## TERRITORIAL DEPARTMENT, REVENUE.

To W. STUBBS, Esq.,

Collector of Surat.

SIR,—I am directed to acknowledge the receipt of your letter dated the 10th instant, and to inform you that the Honorable the Governor in Council authorises you to fix the Salamee, leviable on the Vechancee and Gurancee lands in the Purguna of Parchole, on the death of the present incumbents, at one-half of the full village rate, as proposed.

I have the honour to be, &amp;c.

(Signed) J. BAX,

Secretary to Government.

*Bombay Castle, 17th November 1828.*

(True copies)

(Signed) P. STEWART,

Collector.

No. 296 OF 1848.

TERRITORIAL DEPARTMENT, REVENUE.

To D. A. BLANE, Esq.,

Revenue Commissioner Northern Division, Poona.

SIR,—I have the honour to acknowledge the receipt of your letter dated 25th July last, No. 1471, requesting to be informed if the decisions with respect to the lands in column 6 of the statement forwarded with my letter dated 17th idem, No. 203, have been reported for the confirmation of Government, as required by Regulation XVII. of 1827; and, in reply, beg to inform you that of the amount of land entered in column 6 of the statement above alluded to, only nine instances, extending over 295 beegas 1 w. 12½ ww. of land, have been reported to Government and received their confirmation, as shown in the accompanying statement. The remaining 1,296 beegas 6 w. of land were confirmed to the holders; but the proceedings of the Principal Collector, his Assistants, and Assistant Collector, were not submitted to Government for confirmation, as required by Regulation XVII. of 1827.

I have the honour to be, &amp;c.

(Signed) P. STEWART,  
Collector.

*Surat, Collector's Office, Camp Urajun, 4th November 1848.*

Statement showing the Total Amount of Land in each Purguna, the right to Possession of which has been inquired into by the Principal Collector, his Assistants, and Assistant Collector.

| No.     | Purganas.       | Total Amount of Land in each Purguna, the right to Possession of which has been inquired into by the Principal Collector, his Assistants, and Assistant Collector, admitted by them, and the decision confirmed by Government. | Total Amount of Land in each Purguna, the right to Possession of which has been inquired into by the Principal Collector, his Assistants, and Assistant Collector, disallowed by them, but which have not been submitted to Government for confirmation, as required under Regulation XVII. of 1827. | Total Amount of Land in each Purguna, the right to Possession of which has been inquired into by the Principal Collector, his Assistants, and Assistant Collector, disallowed by the late Mr. R. G. Chambers, when First Assistant Principal Collector, A. D. 1829. | Remarks.  |
|---------|-----------------|--|--|---|---|
| 1       | 2               | 3  | 4  | 5   | 6   |
|         |                 | Beegas w. ww.  | Beegas w. ww.  | Beegas w. ww.   |   |
| 1       | Oolpar .....    | 12 0 0   |  |   | A.—Disallowed by the Principal Collector, the late Mr. Forbes. Parties, being dissatisfied, filed a suit in the Surat Adawlut : Principal Collector's decision was partly confirmed. Special Appeal was made to the Sudder Dewanee Adawlut : decree of the Judge reversed, and the land confirmed to the parties accordingly by Government.<br>B.—Decision by the late Mr. R. G. Chambers, when First Assistant Principal Collector, A. D. 1829.<br>C.—Disallowed by the Principal Collector, the late Mr. Forbes. Parties, being dissatisfied, filed a suit in the Surat Adawlut : Principal Collector's decision was reversed by the Judge. Government refused permission to make a special appeal to the Sudder Dewanee Adawlut, and the land was confirmed to the parties accordingly.<br>D.—Decision by the late Principal Collector, Mr. Stubbs, A. D. 1832.<br>E.—Disallowed by the then Principal Collector, Mr. Vibart, in the instance of 111 beegas 15 w. 17½ ww. Parties, being dissatisfied, filed a suit in the Surat Adawlut : Principal Collector's decision was reversed, in consequence of the Acting Principal Collector, Mr. Andrews, who succeeded Mr. Vibart having admitted the right of the plaintiff; and the land was confirmed to the parties accordingly by Government.<br>F.—In the instance of the remaining 1 beega 8 w. 15 ww., the claim was disallowed by the Principal Collector, Mr. Simson. Parties, being dissatisfied, filed a suit in the Surat Adawlut; but as Government did not authorise the Principal Collector to defend the same, the land was confirmed to the parties.<br>G.—Decision by Mr. J. H. Pelly, while First Assistant Collector, A. D. 1843. |
| 2       | Koorsud .....   | 25 12 5  | A 50 0 0   | B 1,192 18 10   |   |
| 3       | Chowrasee ..... | 15 0 0   | .....  | .....   |   |
| 4       | Surbhone .....  | .....  | C 46 16 0  | D 66 2 5  |   |
| 5       | Parchole .....  | 32 8 15  | E 113 4 12½  | .....   |   |
| 6       | Chicklee .....  | .....  | .....  | F 37 5 5  |   |
| Total.. |                 | 85 1 0   | 210 0 12½  | 1,296 6 0   |   |

Surat Collector's Office, Camp Urajun, 4th November 1848.

(Signed) P. STEWART, Collector.

No. 853 OF 1847.

To D. A. BLANE, Esq.,

Revenue Commissioner Northern Division, Poona.

SIR,—I have the honour to acknowledge the receipt of your endorsement dated 5th May last, No. 705, on an extract from a Government letter calling for information in regard to the progress which has been made in this Collectorate in the investigation of the validity of rent-free titles to land.

2. In reply, I beg to state that up to this date 1,900 notices have been issued to the occupants of land exempt from payment of public revenue under the provisions of Regulation XVII. of 1827, Section XL. Out of these, 468 have been decided, and have been reported in the form of Half-yearly Registers to Government. The sanction of Government has not, however, been received to such decisions as have been in favour of the holders, without which they cannot be considered as final.

3. The remaining 1,432 undecided notices, most of which were issued in 1827, have all been long pending before the deputed Assistants, but the continual press of other more urgent business has hitherto prevented their being disposed of. Now that the number of Assistants has been reduced, and that under the circular from your department dated 4th January 1847, No. 23, it will be necessary to submit to Government translations of all the proceedings in cases decided in favour of the parties, I fear that there is still less prospect of this investigation being speedily completed. I presume, however, that where notices have been issued, the period of enjoyment would be reckoned only up to their date, so that in such cases the interests of Government are not liable to suffer by the delay which has occurred.

4. It has of late years been the practice in this Collectorate to attach the lands of Inamdars on the death of the incumbent, however valid his title may *primâ facie* be, pending the orders of Government for their continuance or otherwise. In some cases the proceeds of such lands have been credited to Government, and in others kept in deposit. Under the Government circular dated 18th August 1845, No. 4084, this practice has been discontinued as regards Inam *villages*, because the holders, by virtue of their tenure, have claims to money payments in compensation for liquor farms, but is retained in the case of Inam *fields*, as the holders are not entitled to money payments of any kind from Government. I have not hitherto ventured to interfere with what had become an established practice in the Collectorate before I assumed charge of it, although, apparently, not derived from any express order of Government. As a general rule in regard to recognised alienations entered in the accounts without reference to suspicions as to validity of titles, it was introduced after the receipt of the Rules of the 23rd June 1842, for deciding claims to Wurshasuns and *Inam lands*, both which seemed to be placed on the same footing. I would, however, respectfully submit that these Rules, not having any legislative sanction, cannot be held to supersede those laid down in the Regula-

tions, and which, indeed, have continued to be acted on. As a succession does not strengthen a prescriptive right according to the Regulation, and as, in case of a decision against the claim of a holder of land exempt from revenue, the assessment is levied only from the date of that decision, the course to which I have referred does not seem necessary to guard the interests of Government, whilst it is certainly vexatious to Inamdars with good titles, and should, I think, be discontinued, notices being issued when required, if this has not been previously done.

5. Under Section XLVII. of the Regulation above quoted, the Collector is declared, under certain circumstances, not to be competent to leave such questions undecided. If any of the numerous cases now pending should be found to come under this Section, fresh notices must, I presume, be issued; but otherwise, the old notices, mostly of twenty years back, should be retained, it being for the interest of Government to do so.

6. It appears to me that this inquiry, as well as that regarding Wurshasuns, might be brought to a speedy conclusion, if an experienced Assistant Collector were specially employed for the purpose. This might be done without incurring any additional expense, (except for a small establishment,) by transferring temporarily to this Collectorate a First Assistant from Rutnagherry, Kaira, or Surát, where the ordinary amount of work is understood to be less than elsewhere, and where a Second and Third Assistant might probably suffice for a time.

7. It may be a question whether there can be any necessity for formally examining *all* such claims. According to Section XL. Regulation XVII. of 1827, it would seem that it is only when the Collector has reason to believe that no sufficient title exists that it is competent to him to call upon the occupant to defend his claim. At any rate, in cases where Inam lands are held on duly registered deeds, granted by fully authorised public officers, which there are no grounds for calling in question, such a proceeding can scarcely be called for.

I have the honour to be, &c.

(Signed) J. S. LAW,  
Collector.

*Tanna, Collector's Circuit Kutcheree, Ghorebunder, 22nd October 1847.*

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No. 455 OF 1848.

To J. S. LAW, Esq.,

Collector, Tanna.

SIR,—I have the honour, with reference to your letter No. 853, of 22nd October last, relative to the investigation into the titles to alienated lands, to request that you will furnish me with a statement of the extent of such lands in your Zilla, showing the extent investigated and confirmed, and that still remaining to be inquired into.

2. I would beg, also, that you will mention if the whole of the uninvestigated lands be included in the notices represented to have been issued, or otherwise, to what extent.

3. The exception of Inam villages from the rule as to reporting successions, alluded to by you in paragraph 4, I understand to be on the grounds of the recognition of the titles inferred to have been conveyed by the grant of compensation for liquor farms, but would wish to be distinctly informed if no more direct recognitions have ever taken place.

4. I would beg that this information may be supplied at your very earliest convenience.

I have the honour to be, &c.

(Signed) D. A. BLANE,

Revenue Commissioner Northern Division.

*Revenue Commr.'s Camp, Ahmedabad Districts, Hudala, 15th March 1848.*

(True copy)

(Signed) D. A. BLANE,

Revenue Commissioner Northern Division.

No. 494 OF 1848.

To D. A. BLANE, Esq.,

Revenue Commissioner Northern Division, Poona.

SIR,—I have the honour to submit a statement regarding the investigation of titles to alienated lands in this Collectorate, as called for in your letter dated 15th March last, No. 455.

2. As stated in the 2nd paragraph of my previous report dated 22nd October last, No. 853, the confirmation of Government has not been received to the several decisions reported as having been in favour of the holders of such lands. Perhaps this omission might even now be supplied, as on looking over the Half-yearly Registers I find that the grounds of the decisions, especially in the earlier ones, are stated in sufficient detail. I beg to annex a few as specimens, extracted from the Register for the half-year between the 1st July and 31st December 1829, transmitted to Government on the 21st March 1830.

3. The notices issued in 1827 seem to have extended to all the Inam villages and lands entered in the accounts, and others have since been issued from time to time as occasion arose; so that it may be said that the preliminary step has been taken in regard to all the uninvestigated lands as far as known at present, although it is very possible that more may in time be brought to light.

4. I do not find that any general direct recognition by Government of the titles to Inam villages has ever taken place. They were originally continued to the parties in possession according to the list extracted from the Poona

Duftur by the Commissioner of the Deccan. The titles of most, if not all, of those included in the old Collectorate of the Northern Konkun, have been inquired into, and reported to Government in the Registers above referred to.

I have the honour to be, &c.

(Signed) J. S. LAW,

*Tanna, Collector's Office, 5th June 1848.*

Collector.

*Statement showing the extent of Alienated Lands investigated, and that still remaining to be inquired into.*

#### INVESTIGATED.

2,386 beegas, 8 pands, 7 katees.  
 49 mooras, 8 furras, 8 pailies.  
 22 kass.  
 25½ ploughs.  
 36 hors.

Annual value of Hoondas, &c. of the extent of which there  
 is no record of any kind ..... Rs. 439 7 0

UNINVESTIGATED, as entered in the notices remaining to be decided.

2,553 beegas, 17 pands, 17½ katees.  
 580 mooras.  
 2½ kass.  
 12½ ploughs.  
 13 hors.  
 495 tukhas.  
 1 khundy, 5 maunds, 6 pailies.

Annual value of Hoondas, &c. of the extent of which there  
 is no record of any kind ..... Rs. 1,042 4 2

(Signed) J. S. LAW,

Collector.

*Tanna, Collector's Office, 5th June 1848.*



*Extract from the Register of Decisions on Claims to hold Land wholly or partially exempt from the payment of Land Revenue by the Collector of the Northern Konkan, from the 1st July to the 31st December 1829, with reference to Chapters IX. and X. Regulation XVII. A. D. 1827.*

| No. of Case. | No. of Notice. | Talooka.      | Names and Places of Residence of Possessors of Land.  | Cause of Inquiry, Extent of Land, &c., and Date of Notice.   | Cause and Nature of Decision.  | Remarks.  |
|--------------|----------------|---------------|---|--|--|---|
| 1            | 561            | Sakoorlee.... | Trimbuk Narayan Purchaseoray, deceased; Wishwanath Gunes Nisbut Ram Rao Kassinath Purchaseoray, of Goochagur, in the Unjunwell Talooka. | Refusal to pay the assessment of Moujé Asserolee, Turuf Korekada, Talooka Sakoorlee, situated near the Moujé Kangaum, Turuf Munvul, which is held at Anna Cheter. —18th Oct. 1827. | Ram Rao Kassinath Purchaseoray holds the village Kangaum on account of the Anna Cheter for the Shree Poorundey Iswer Pooja, and offering. On the 17th April 1828 Mr. Simson, the Collector, ordered the Komavisdar to continue the village till the grant was confirmed, and in the column "Remarks" of Case No. 26 of Register of Decisions from 1st January to June 1828, the Collector noted "a further representation of this case will be made to Government." It would appear that Rs. 1,500 is paid in cash, and the village in question yielding Rs. 1,500 enjoyed, making a total of Rs. 3,000. Regarding the question whether the holder is to account to the Sirkar for the actual disbursements, it is not specified in the English Poona book of all the Inams and Dhurnadeos that annual accounts are to be given. The accounts of the Anna Cheter for the years 1797-98 and 1799-1800 are in the Duffur; but these are old, and none of a later period are forthcoming. The Peshwa himself granted a Sunud in the year in which the Nemnook was given; it is dated 12th Shaban Sun Summan Tissaeyen (corresponding to A. D. 1797-98). This was entered in the Poona book on the 6th July 1826, and is signed as having been so registered, by Mr. Warden. There is nothing to show that the | See Register of Decisions from 1st January to 30th June 1828, No. 26. |

holder is bound to give an annual account of the appropriation. Ordered, therefore, that the Nemook be continued as heretofore. Order to this effect sent to the Duttardar on the 6th July 1829.

Balum Bhut bin Refusal to pay the assessment of 11 beegas of Khureef land in the village Kowad, Turuf Sonalee.—16th Nov. 1827.

Balum Bhut acknowledged the receipt of the notice, and signed it. He produced a Sunud dated the 11th Mohurum, Sun Usareen (A. D. 1719-20), signed by Balajee Wishwanath Peshwa, granting Govind Bhut bin Narayen Bhut 6 beegas of Khureef land in perpetuity in the village of Kowad, Turuf Sonalee. On Govind Bhut's death, the land was confirmed by another Sunud, granted by Bajee Rao Bullal Peshwa in perpetuity to Keshow Bhut bin Narayen Bhut, dated 15th Suffer, Sun Sut Usareen (A. D. 1725-26). The above two Sunuds were for 6 beegas of land. On the 7th Suffer, Sun Sullas Usareen (A. D. 1722-23), the Peshwa, Bajee Rao Bullal, gave a Sunud to Keshow Bhut bin Narayen Bhut, granting him 5 beegas of land in the Mouje Poravuly. The land granted by the above three Sunuds is 11 beegas, which Kurvee enjoyed without interruption to this day. In the Zhurtees of Sun Eesnai Subbeyn (A. D. 1771-72) and Sun Sullas Usar (A. D. 1812-13) 11 beegas of land are entered to the name of the above individual, valued at Rs. 55, from which is deducted, on account of the Zemindar's Huks, Rs. 2-1-50, leaving Rs. 52-2-50 entered as above. In the Zemindar's Taleebunds, 11 beegas of land are entered in the name of Kurvee, valued, with the Zemindaree, at Rs. 55. The defendant has further proved his descent from Balum Bhut bin Bappoo Bhut Kurvee. For the above reasons, ordered, in conformity to the provisions of Clause 1st, Section XXXV. Regulation XVII. A. D. 1827, that the land

| No. of Case. | No. of Notice. | Talooka.            | Names and Places of Residence of Possessors of Land.   | Cause of Inquiry, Extent of Land, &c., and Date of Notice.  | Cause and Nature of Decisions.  | Remarks.   |
|--------------|----------------|---------------------|--|---|---|--|
| 5            | 698            | Sakoorlee . . . . . | Peer Munsoor Khan Durgah, Kusba Shapoor by Shaik Oosman wulud Jaffer Shah Fakeer, of the same village. | Refusal to pay the assessment of half the village of Tooley, in the Turuf Agai, Talooza Sakoorlee, which he holds in Mahsoolee Inam ; and the other moiety in like manner, including the Ghurvan, both of which he holds in farm on account of the Peer Munsoor Khan.—27th Dec. 1827. | be continued as heretofore in the possession of Balum Bhut bin Bappoo Bhut Kurvee from A. D. 1829-30. Order to the above effect, sent to the Komavisdar of Talooka Bassein.—27th July 1829. | Shaik Oosman wulud Jaffer Shah Fakeer acknowledged the receipt of the notice, and signed it. He produced an Aignia Puttr, signed by Bajee Rao Bullal Prudhan, dated Sun Subha Fallaseen (A. D. 1736-37), to the Mokadums of the village, the original of which has been recorded in the Dufur. Also a Zhurtee signed by Govind Mahadeo Adikaree, of the same Turuf, for the Sun Seet Tissayn (A. D. 1795-96), and named witnesses, who state in their depositions that half of the village in question is his Mahsoolee Inam. This portion is rated at Rs. 38-1-0. The other moiety they say belongs to the Sirkar, which, together with the Ghurvan, is rated at Chineeoorree Rs. 45-1-0, and was enjoyed many years by the manager of the Peer Munsoor Khan Durgah, Kusba Shapoor, as the ancient servant of the Peer. Admitted, therefore, in conformity to the provisions of Clause 2nd, Section XXXVIII, Regulation XVII. A. D. 1827. Ordered, in reference to Section XXXVII. of the same Regulation, that half the village be held on Khayat, and half in Mukta, as above, from 1829-30. Order to this effect sent to the Komavisdar of the Sakoorlee Talooka, on the 17th August 1829, No. 97. |

|    |     |           |   |  |  |
|----|-----|-----------|---|--|--|
| 7  | 720 | Nusrapoor | Annajee Rao Belasee, present occupants Kunda Rao Belasee, and Gunrajee Rao Belasee, of the Moujé Navalley.                      | Refusal to pay the assessment of the village Navalley. — Turuf Wusseree. — 27th Dec. 1827                      | Both the occupants acknowledged the receipt of the notice, and signed it. They produce the original Sunud, dated in Sun Sullas Subbeyn (A. D. 1772-73), granting Anajee Rao Belasee the village in Inam in perpetuity, and signed by Narayen Rao Bullal Prudhan. This does not appear to have been recorded in the Duffur according to custom. The Sunud, however, bears the signature of the Peshwa himself, and they held the village upon the strength of it. Ordered, therefore, in conformity to the provisions of Section XXXVII. Regulation XVII. A. D. 1827, that the village be continued to them as heretofore, from 1829-30. It is rated at Rs. 255-1-25. Order to the above effect sent to the Acting Komavisdar of the Nusrapoor Talooka. — 20th August 1829, Kullian No. 128.  |
| 10 | 314 | Ditto     | Ramchunder Chintamun Joshee Gondgukur, for and on behalf of the Suwusthan Shree Vydenath, Moujé Hoomgaum, Turuf Kothul Kullate. | Refusal to pay the assessment of 3 beegas of land in Moujé Gunneagaum, Turuf Kothul Kullate. — 5th Sept. 1827. | Ramchunder Chintamun acknowledged the receipt of the notice, signed it, and attended on the 3rd October 1827. He gave in a petition. Referring to the notice, it was found that he attended six days after the prescribed time. He pleaded indisposition as an excuse. He filed Sunuds signed by Bajee Rao Rugoonath Prudhan, dated Sun Subhan Ussee (A. D. 1816-17), one to the address of the Mamlutdar, a second to the Zemindars, and a third to the Mokadums of the Moujé Gunneagaum, all three in favour of Chintamun Joshee Gondgukur and Wassoodeo Bhut Abyeankur, granting them 3 beegas of land, and desiring them to appropriate the revenue of the aforesaid 3 beegas of land, Rs. 15, to the Shree Oochan. Neither of these appears to have been recorded in the Duffur, according to custom. In explanation of this omission, he said he had not the Sunuds in his possession at the time. This is a valid |

| No. of Case. | Talooka.              | Names and Places of Residence of Possessors of Land.  | Cause of Inquiry, Extent of Land, &c., and Date of Notice.   | Cause and Nature of Decisions.  | Remarks. |
|--------------|-----------------------|---|--|---|----------|
| 15           | 348 Sakoorlee . . . . | Deojee bin Majjee Banlai Rao Adikaree, and Bhyrjee bin Sumbhaje Banlai Rao Adikaree, of the Turuf Rahoree, Moujé Kunevully. | Refusal to pay the assessment of the villages Moujé Kunevully and Moujé Washelah, in the Turuf Ravoore, which they hold in farm.—29th Nov. 1828. | <p>reason. In the Poona lists of Dewusthans, Dhurnadeos, and Inams, received from Bombay, the land is entered likewise in the Poona book sent to Tanna. The Sunuds are addressed to the Mookhteyar Adikaree, as directed in Section XXXV. Regulation XVII. of 1827. Ordered, therefore, in conformity to the provisions of Section XXXVII. Regulation XVII., that the land be continued as heretofore from 1829-30, and that the revenue, Rs. 15, be appropriated for the Shree Vydenath. Order to the above effect issued to the Komavisdar of Nusrapoor, on the 5th September 1829, Kullian No. 133.</p> <p>The Vyvadtars attended within the time prescribed in the notice, and filed petitions. It appeared, on investigation, that both the villages were given to the holders in Esaput Mukta on the 25th March 1822, on the Beriz of 1816-17, as follows:—<br/> Moujé Kunevully. . . . Rs. 758 2 12<br/> Moujé Washelah. . . . 687 3 50<br/> <hr/> Total . . . . Rs. 1,446 1 62</p> <p>The village Washelah was surveyed in 1827-28, and the land rated at Rs. 5½ per beega, thereby estimating Rs. 487-1-40 by survey more than the Beriz of 1816-17. The Ryots of this village presented a petition to the Hoozoore on the 12th April 1828, begging that it be taken under the protection of Government, or that it be given to them in farm, offering</p> |          |

to pay Rs. 125 annually more than the Adikaree. They complained of being oppressed by the Adikaree, and stated that he held both villages as Khote for a short time under the late Government, and that he was afterwards dispossessed of both. They begged that it be resumed by Government, for both the above reasons. The Adikaree, on the other hand, produced the kutchra accounts of the villages, which did not exhibit any very great profit in his favour. Regarding the right of Government to resume Esaput villages, it appears to have been the custom under the late Government to order the survey of Esaput villages at the same time as all other villages, in the event of the Mahal in which both are situated being surveyed, to raise the assessment to the survey rates, and in the event of the Esaputdars refusing to pay the increase, for Government to resume the village. The Ryots of the village Washelah were desired to file a complaint, stating the particulars of the Muktadar's oppression, and in conformity to the provisions of Section XXXVII. Regulation XVII. of 1827, it was ordered that both the villages be continued to the Adikaree according to former order, from 1829-30 till the completion of the survey of the Mahal in which they are included, or till they refuse to pay the survey assessment. Order to the above effect issued to the Acting Komavisdar of the Sakoorlee Talooka, on the 16th October 1829, No. 161.

Ramchunder Juggonnath acknowledged the receipt of the notice, and signed it. He died two months ago. Shamrao Juggonnath attended in lieu of the deceased, and produced an original Sunud, signed by Bajee Rao Bulial Prudhan, dated 17th Rubee-ool-Akhur Sun Sset Ussaryen Mya wu Ulluf (A. D. 1725-26), to

Ramchunder Juggonnath, of the village of the Moujé Budaney, which he holds in Inam, and the Ghurvan of the

563 Bassein . . . . .

| No. of Case. | No. of Notice. | Talooka. | Names and Places of Residence of Possessors of Land. | Cause of Inquiry, Extent of Land, &c. and Date of Notice. | Cause and Nature of Decisions.  | Remarks. |
|--------------|----------------|----------|--|---|---|----------|
|              |                |          |  | whole village.—2nd November 1827.                         | <p>the address of Mahadajee Krishna Prubhoo, advising him of half the village, together with the Koolhub, Koolkunnoo, Haleeputtee, Pesterputtee, water, and trees, grass, stones, Needy, Neekshep, &amp;c. having been given in Inam. This Sunud has been recorded in the Duftur. He likewise showed four Daklas of the Soobadars and Komavisdars of the late Government. antecedent and subsequent to the years 1803-04. Further, it is proved that he held half the village in Inam, and the whole of the Ghurvan, from the time of the cession to the Company. Ordered, therefore, in conformity to the provisions of Clause 3rd, Section XXXV. Regulation XVII. A. D. 1827, that it be continued jointly as heretofore, from 1829-30, to Shamrao Juggonnath, Ram Rao Yeshwunt, Naroo Bhugwunt, Vamun Bajee Rao, Shewa Ram Myput, Hybut Rao Moreshwur, and Gunness Sudasew, total seven sharers. The Inam is rated at Rupees 701-3-0, which is to be entered annually in the Inam accounts. The Jumrabundee of the whole village to be made by the Sirkar, and the amount alienated as above. The whole of the Ghurvan and half the village to be deducted in favour of the Inamdars. One-half only to be entered in the Sirkar Vusool Bawkee, and the other half to be paid to the Inamdars. The Surpatelkee allowance belongs to the Sirkar, and is to be deducted from the half of the Inam equally with the other half. Order to the Komavisdar of the Talooka Bassen, dated 9th November 1829, No. 137.</p> |          |

(True extract) (Signed) J. S. LAW, Collector.

No. 595 OF 1847.

TO THE REVENUE COMMISSIONER NORTHERN DIVISION.

SIR,—With reference to your endorsement No. 705, under date the 5th instant, on extract from Government letter No. 1219, of the 30th ultimo, I have the honour to refer you to Mr. Collector Bell's letter No. 551, under date the 28th June 1845, as containing a full exposition of the state of the inquiries into rent-free lands in this Collectorate. Mr. Bell's letter was replied to by Mr. Secretary Townsend in a communication to the Revenue Commissioner, No. 5346, of the 14th November following.

I have the honour to be, &c.

(Signed) G. INVERARITY,  
Acting Collector.

*Khandeish Collector's Office, Camp Moclair, 10th May 1847.*

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No. 1796 OF 1848.

TO THE REVENUE COMMISSIONER NORTHERN DIVISION.

SIR,—As directed in your letter No. 456, dated the 15th March last, I have the honour to transmit, enclosed, a statement of the extent of Inam land in this Collectorate, showing the extent investigated and confirmed, and that still remaining to be inquired into.

I have the honour to be, &c.

(Signed) A. ELPHINSTON,  
Collector.

*Khandeish Collector's Office, Dhoolia, 22nd November 1848.*

*Statement*



*Statement of the Extent of Inam Land in the Khandeish Collectorate, showing the extent investigated and confirmed, and that which still remains to be inquired into, as required by the Revenue Commissioner's Letter No. 456, dated the 15th March 1848.*

| Talookas.             | Inam investigated, and confirmed by Government. |              |         | Inam still remaining to be inquired into. |              |         | Total in Inam Land. |              |         |
|-----------------------|---|--------------|---------|---|--------------|---------|---------------------|--------------|---------|
|                       | Extent in Beegas.                               |              | Amount. | Extent in Beegas.                         |              | Amount. | Extent in Beegas.   |              | Amount. |
|                       | Beegas p.                                       | Rs. a. p.    |         | Beegas p.                                 | Rs. a. p.    |         | Beegas p.           | Rs. a. p.    |         |
| 1. Dhoolia .....      | 14,307 18½                                      | 12,619 0 0   |         | .....                                     | .....        |         | 14,307 18½          | 12,619 0 0   |         |
| 2. Amulnair .....     | 14,164 14½                                      | 15,635 1 6   |         | 11,339 13                                 | 13,643 11 3  |         | 25,504 7½           | 29,278 12 9  |         |
| 3. Erundole .....     | 20,155 6¼                                       | 29,901 7 6   |         | .....                                     | .....        |         | 20,155 6¼           | 29,901 7 6   |         |
| 4. Bhurgaum .....     | 17,278 19½                                      | 16,255 7 9   |         | 1,471 5                                   | 1,273 11 9   |         | 18,750 4¼           | 17,529 3 6   |         |
| 5. Chaleesgaum .....  | 4,122 1¾  | 2,539 11 6   |         | 6,215 10½                                 | 4,316 14 9   |         | 10,337 12½          | 6,856 10 3   |         |
| 6. Malligaum .....    | 9,435 12  | 6,462 8 3    |         | 11,262 10½                                | 6,008 11 3   |         | 20,698 2¾           | 12,471 3 6   |         |
| 7. Baglan .....       | 8,227 13½                                       | 7,538 2 6    |         | 13,727 2½                                 | 9,541 13 6   |         | 21,954 16½          | 17,080 0 0   |         |
| 8. Pimpulnair .....   | 5,288 10  | 5,357 2 6    |         | 8,894 4½                                  | 5,354 7 0    |         | 14,182 14½          | 10,711 9 6   |         |
| 9. Nundoorbar .....   | .....   | .....        |         | 56,720 9                                  | 90,165 4 3   |         | 56,720 9            | 80,165 4 3   |         |
| 10. Sooltanpoor ..... | 673 12  | 1,091 11 0   |         | 20,938 2                                  | 33,641 12 9  |         | 21,611 14           | 34,733 7 9   |         |
| 11. Thalhair .....    | 10,717 10                                       | 18,415 2 3   |         | 19 10                                     | 36 7 6       |         | 10,737 0            | 18,451 9 9   |         |
| 12. Chopra .....      | 19,143 10                                       | 36,889 10 6  |         | 4,210 15½                                 | 4,758 15 3   |         | 23,354 5½           | 41,648 9 9   |         |
| 13. Yawul .....       | 13,445 1½                                       | 19,425 3 3   |         | .....                                     | .....        |         | 13,445 1½           | 19,425 3 3   |         |
| 14. Sowda .....       | 17,620 5  | 33,577 5 6   |         | 884 10                                    | 725 2 0      |         | 18,504 15           | 34,302 7 6   |         |
| 15. Nusserabad .....  | 17,066 7¾                                       | 29,107 13 3  |         | .....                                     | .....        |         | 17,066 7¾           | 29,107 13 3  |         |
| 16. Jannair .....     | 15,892 6  | 15,957 9 0   |         | 302 5                                     | 156 8 9      |         | 16,194 11           | 16,114 1 9   |         |
| Total.                | 187,539 8                                       | 2,50,773 0 3 |         | 135,985 18½                               | 1,59,623 8 0 |         | 323,525 6½          | 4,10,396 8 3 |         |

(Errors excepted)

(Signed) A. ELPHINSTON, Collector.

*Khandeish Collector's Office, Dhoolia, 22nd November 1848.*

No. 125 of 1848.

To D. A. BLANE, Esq.,

Revenue Commissioner Northern Division, Surat.

SIR,—In reply to your letters as per margin, calling for a report on the state

Endorsement No. 705, of the 5th May 1847, from the Revenue Commissioner Northern Division.

Reply from the Agent, 25th May 1847, No. 125.

Letter 7th June, No. 933, from the Revenue Commissioner N. D.

Reply from the Agent, 30th June, No. 173.

Letter 7th July, No. 1113, from the Revenue Commissioner N. D.

Reply from the Agent, 31st July, No. 214.

Letter 4th August, No. 1285, from the Revenue Commissioner Northern Division; and letters Nos. 1851 and 264, dated respectively 19th November 1847 and 12th February 1848.

of the inquiry into the validity of rent-free titles, I have the honour to give you the following information.

2. There is a sum of Rs. 14,722-2-6

alienated in Inam, under the following heads:—

For lands granted in Inam, *i. e.* the three villages

Ambeeghur, Koorkoondce, and Koortumbee .... Rs. 1,833 10 1

For ditto granted for charitable purposes, three

villages, Kotghur, Warrow Khoord, and Wunowlee. 1,031 12 10

Miscellaneous grants on rice and garden land, cocoa-nut and toddy trees.....

4,755 11 0

Endowments to Hindoo and Mahomedan shrines of saints, and temples, viz. three whole villages, Sogoon, Narrungee, and Wulowlee, and half of three villages, Chinchowlee, Khar Peramba, and Moujé

Peramba ..... 7,101 0 7

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Total....Rs. 14,722 2 6

3. I do not believe that any other lands in Colaba, besides the above, are held free of rent, except Kowlee land, of which the period of exemption has not yet expired. Some of these, however, require investigation, as these Kowls were granted by the late Dewan without due authority, after the decease of the late infant child Ranjee Angria. My predecessor, Mr. Davies, caused all persons to register their Sunuds, and 189 of these were registered, amounting to Rs. 12,576-6-9, leaving Rs. 2,145-11-9 of the whole amount alienated, of which the title-deeds have not yet been registered. One of the unregistered title-deeds is that of the villages of Koorkoondce and Koortumbee, Rs. 1,412-9-4, held in Inam by the Chitnees of the Raja of Sattara for as many years back as the accounts of this State extend, *i. e.* 1814-15, of the title to which there is no doubt. The remaining Rs. 733-2-5 is composed of,—

|                      |              |
|----------------------|--------------|
| Dewusthan .....      | Rs. 422 10 7 |
| Dhurmadace .....     | 122 11 10    |
| Special reward ..... | 32 2 9       |
| Inam .....           | 135 9 3      |

Total....Rs. 733 2 5

4. The investigation which remains to be made is as follows :—

1st.—What relationship do the present incumbents bear to the original grantees ?

2nd.—Of those who have no title-deeds, to trace back the origin of the grants from the accounts of the late State.

3rd.—To inquire into the claims of those holding lands exempt from rent, whose Sunuds are not expressly made hereditary.

5. I beg to state that I have not had time for making these inquiries ; but it is my intention to devote myself to them during the time of the close of the civil business of the Court of Alibagh, viz. during the latter end of April and the whole of May next.

I have the honour to be, &c.

(Signed) E. C. JONES,

Agent at Colaba.

*Agent's Office, Alibagh, 4th March 1848.*

No. 682 OF 1849.

TERRITORIAL DEPARTMENT, REVENUE.

To W. COURTNEY, Esq.,

Acting Secretary to Government, Bombay.

SIR,—With reference to my predecessor's letter No. 2375, of the 5th December last, submitting for the information of the Right Honorable the Governor in Council a correspondence from the Collectors of this Division regarding the large amount of alienated lands in the various Zillas, and the very unsatisfactory condition of the claims and titles to this considerable property, I do myself the honour to observe that the amount of this alienated property would appear, by a letter submitted to Government by Mr. Blanc, No. 935, dated 19th May 1848, reporting on a code of Rules drawn up by the Inam Commissioner of the Southern Muratha Country, to be estimated for both divisions at an annual valuation of Rs. 82,14,787-15-8 for the year 1846-47, of which large amount Rs. 36,71,034-8-2 appertained to this division (vide figured statement following), distinguishing Rs. 8,09,413 as service lands to Patels, Koolkurnees, and others, and leaving Rs. 28,61,621-8-2 as the amount wholly alienated from Government.

| Divisions.                                 | Amount entered in<br>col. 6 of Statement<br>A, accompanying<br>Collector's Annual<br>Reports for 1846-47. |    |    | Amount entered in<br>col. 8 of Statement<br>A, accompanying<br>Collector's Annual<br>Reports for 1846-47. |    |    |
|--|---|----|----|---|----|----|
|  | Rs.   | a. | p. | Rs.   | a. | p. |
| Ahmedabad .....                            | 80,394  | 15 | 0  | 8,18,166  | 9  | 3  |
| Kaira .....                                | 74,989  | 4  | 11 | 8,48,053  | 8  | 10 |
| Surat .....                                | 1,01,951  | 6  | 6  | 4 88,086  | 3  | 5  |
| Broach .....                               | 171,731   | 1  | 2  | 7,50,518  | 5  | 8  |
| Tanna .....                                | 37,768  | 0  | 8  | 1,95,931  | 7  | 10 |
| Khandeish .....                            | 3,12,578  | 3  | 9  | 5,56,364  | 1  | 0  |
| Agent at Colaba .....                      | ...   |    |    | 13,914  | 4  | 2  |
| Total Northern Division .....              | 8,09,413  | 0  | 0  | 36,71,034   | 8  | 2  |
| Total Southern Division .....              | 22,39,155   | 6  | 5  | 45,43,753   | 7  | 6  |
| Total Northern and Southern Divisions .... | 30,48,568   | 6  | 5  | 82,14,787   | 15 | 8  |

2. The Collectors of this Division, with the exception of the Agent at Colaba, who promised to commence an inquiry, but has as yet made no report, are unanimous in the opinion in the correspondence alluded to and at present before Government, that they have not the means or necessary aid to commence an inquiry into these titles and claims with any reasonable anticipation of drawing the investigation to a satisfactory result.

Mr. Fawcett, the Collector of Ahmedabad, in his letter No. 255, of the 3rd September 1847, states,—“It has not been practicable to make much progress in this work, which, in my humble opinion, would require the undivided attention of an experienced officer for some years. I do not, however, see any probability of Government having at disposal any covenanted officers to appoint, and the only feasible mode of forwarding this investigation that occurs to me is to authorise Mamlutdars to decide upon titles to exemption.”

Mr. Webb, the Collector of Kaira, replies, in paragraphs 5, 6, and 7 of his letter No. 432, of the 23rd December 1847 :—“The small quantity of land entered in the statement as having been allowed to be enjoyed during the lifetime of the parties must have been, in all probability, granted through a compassionate consideration of their distressing circumstances, and will sooner or later be escheated to Government.

“With regard to the lands whose tenures remain to be investigated, notices have been served on a small quantity without any previous inquiry, and merely because they are the property of private individuals. In a great many cases the Salamee or quit-rent and the Suwadeeca levied on alienated lands is just the same, or nearly equal to what they would yield if they were Government lands.

“The tenures in column 15 being for the most part recognised by Regulation XVII. of 1827, the titles to lands held under them cannot be disputed.”

Mr. Davies, the Collector of Broach, in the 11th and 12th paragraphs of his letter No. 264, of 13th December 1847, submits:—"With regard to the manner of dealing with the inquiry yet unperfected in this Zilla, it would be presumptuous in me to offer an opinion at this stage of the question. Regarding, however, the signally unsuccessful result of the desultory attempts hitherto made from time to time for asserting the rights of Government, there would appear to be no chance of arriving at anything satisfactory if the investigation is to be resumed by the unassisted agency of the present establishment of the Zilla at the point where the Survey Committee's inquiry ceased. I find, indeed, that during the last ten years from three hundred to four hundred notices (under Section XL. of Regulation XVII. of 1827) have been issued for the trial of doubtful claims, but that not more than three of these have been brought to issue, one of the latter being the case laid before you with my letter No. 147, of the 14th July last, which case itself was of several years' standing. The utmost that can reasonably be looked for from the permanent establishment would appear to be a strict and uniform application of the Rules to lapses occurring in resumable tenures in those Talookas where the Survey Committee have already paved the way.

"With regard to the arrears of notices referred to in the foregoing paragraph, I cannot undertake to state that there is the least probability of ever bringing them to issue in the ordinary course: each case, indeed, would be equivalent to a civil suit (conducted as it is directed they should be in Section XLII. Clause 1st of Regulation XVII. of 1827), with the concomitant delay, expense of process, and ultimate right of appeal appertaining to civil process; and such an investigation, even if practicable, in addition to the other current business of a Collector and Magistrate's Office, would be slow and uncertain, and wholly inadequate to meet the end in view. In fact, nothing more feasible suggests itself than that a competent Committee (of which the Collector might be a member) should prosecute the investigation, uninterrupted by the miscellaneous calls which interfere to distract the attention of the local officers from any exclusive subject of inquiry."

Mr. Stewart, the Collector of Surat, in paragraphs 2 and 3 of his letter No. 62, of 23rd February 1848, states:—"From the above it would appear that in the Purgunas of Walore and Chicklee, sixty-three villages of the Bugwara Purguna, and eighteen villages of the Kurode Purguna, no regular survey or measurement has taken place, although throughout the whole Collectorate lands have at various times been resumed and assessed, both Sirkaree and Maafee, when instances of their being held without title have been brought to the notice of the Collector; and it would appear that Mr. Simson, in the year 1841, directed that Wudara land to a great extent should be assessed, and the proceeds brought to the credit of Government, and in case payment should be refused, that notices should be issued in usual manner, calling on the holders to prove their titles under Regulation XVII. of A. D. 1827.

"Government, in its letter No. 1087, dated 12th April 1842, paragraph 14,

called the attention of the Collector to the importance of immediately attending to this subject, lest the period that had elapsed might prove fatal to the claims of Government to its fair assessment; and Mr. Simson issued many hundred notices under the Regulations, but no great progress appears to have been made in the inquiry,—probably, as suggested by Mr. Simson in the 25th paragraph of his Jummabundee Report for 1840-41, dated 21st September 1841, No. 301, from the various other important and pressing duties to which the attention of the Collector was necessarily directed.”

Mr. Law, the Collector of Tanna, in the 6th paragraph of his letter No. 853, of 22nd October 1847, states,—“It appears to me that this inquiry, as well as that regarding Wurshasuns, might be brought to a speedy conclusion if an experienced Assistant Collector were specially employed for the purpose. This might be done without incurring any additional expense (except for a small establishment), by transferring temporarily to the Collectorate a First Assistant from Rutnagherry, Kaira, or Surat, where the ordinary amount of work is understood to be less than elsewhere, and where a Second and Third Assistant might probably suffice for a time.”

Mr. Elphinston, the Collector of Khandeish, offers no suggestion, but submits a statement showing that in his Zilla there are 323,525 beegas 6¼ pands of alienated land, of which the claims to 135,985 beegas 18¼ pands are remaining to be inquired into.

Mr. Jones, the Agent at Colaba, reports that no specific inquiry into the claims of alienated lands has been made, and in the 5th paragraph of his letter No. 125, of 4th March 1848, intimates,—

“I beg to state that I have not had time for making these inquiries; but it is my intention to devote myself to them during the time of the close of the civil business of the Court of Alibagh, viz. during the latter end of April and the whole of May next.”

3. Fully impressed with the extreme importance of commencing an investigation into these claims as early as possible, and that the Collectors of the different Zillas have not really at their disposal either time sufficient or the assistance indispensable to commence the inquiry with any fair prospect of bringing it to a speedy or satisfactory conclusion, I have not deemed it necessary to make any further references to those officers than such as have already been done by Mr. Blanc, by which no advance towards a final settlement is likely to arise, while protraction and delay are adding to its difficulties, and conveying, under the provisions and limitations of Regulation VI. of 1833, a legal title to many lands originally fraudulently possessed and surreptitiously enjoyed.

4. To meet this emergency, I would respectfully suggest that an officer should be specially appointed as an Assistant to the Collectors of this division and Agent at Colaba, invested with powers to at once commence an inquiry into the titles of alienated land, and to be guided in his investigations by the Rules drawn up by Mr. Hart, the Inam Commissioner of the Southern

Muratha Country, and approved by Government,—vide its letter No. 1213, of 20th February 1849, to the Revenue Commissioner Southern Division, copy of which was forwarded for the information of this department on the same date,—

1st.—To arrange the alienated lands of each Zilla into a comprehensive form, showing the title upon which they were claimed.

2nd.—To submit the claims to alienated lands as were obviously fraudulently held, for sequestration, or otherwise for the Collector's final orders.

5. The great importance of an investigation of these claims before the period of limitation has expired, as provided for in the Regulation quoted in paragraph 3 of this letter, has induced me respectfully to submit this suggestion for the early consideration of the Right Honorable the Governor in Council. I do not propose to relieve the Collectors of any part of their present responsibility; my object is to extend to them that aid without which no settlement can be made, and to render the mode of conducting this inquiry as little expensive as possible to Government. The establishment required for the special Assistant, with the exception of one English writer and one Karkoon, should be, I am of opinion, taken from the Collector's department in whose Zilla he may be employed, and a quarterly report through the Collector, exhibiting the progress made, should be furnished to this department, for the information of Government.

6. An investigation into the titles of the large amount of alienated and service land, possessing in this division an annual income estimated at Rs. 36,71,034-8-2 (upon which no inquiry would ever appear to have been made), is an operation which the interests of Government demand, and admits of no delay, as Regulation VI. of 1833 conveys a legal and indisputable title to the possessor of lands, whenever such have been enjoyed without payment of public revenue for more than thirty years in succession by any persons, his heirs, or others deriving right from him.

I have the honour to be, &c.

(Signed) A. N. SHAW,

Revenue Commissioner Northern Division..

*Revenue Commr.'s Camp, Alibagh, 9th April 1849.*

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No. 2052 of 1849.

TERRITORIAL DEPARTMENT, REVENUE.

To H. E. GOLDSMID, Esq.,

Secretary to Government, Bombay.

SIR,—With reference to my letter No. 682, of 9th April last, I do myself the honour to forward a report, No. 318, of 2nd instant, from the Collector of Surat, recommending the adoption of some "extraordinary measures" for the

disposal of the claims to alienated lands in that Zilla; and as I believe the subject is at present under the consideration of the Right Honorable the Governor in Council, I respectfully beg to submit Mr. Fawcett's letter for the information of Government.

I have the honour to be, &c.

(Signed) A. N. SHAW,  
Revenue Commissioner Northern Division.

*Revenue Commr.'s Camp, Poona, 9th October 1849.*

No. 318 OF 1849.

TERRITORIAL DEPARTMENT, REVENUE.

From E. G. FAWCETT, Esq.,

Collector of Surat,

To A. N. SHAW, Esq.,

Revenue Commissioner Northern Division, Poona.

*Dated 2nd October 1849.*

SIR,—I have the honour to forward for your information a memorandum of the state of the notices issued under the provisions of Chapter X. Regulation XVII. of 1827, for the resumption of alienated lands.

•2. It appears that my predecessor, upon the correspondence which took place with your department ending with the letter dated 4th November 1848, No. 296, to avoid the chance of the term of thirty years expiring, and thereby causing prejudice to the interests of Government, ordered notices to be issued upon all alienated lands that had not hitherto been investigated.

3. The number of notices on hand is therefore enormous, no less than 15,014 being issued in consequence of this order, in addition to 996 which were previously issued, the investigation of which has not been concluded; making altogether 16,010 cases to be disposed of.

4. Of these some few, as will appear from the memorandum, will be struck off for non-appearance, but still the number remaining is so great that there seems no likelihood of the present establishment being able to dispose of them for years to come, while all this time the holders are in a state of uncertainty as to the validity of their tenures.

5. Added to this, notices have not been issued in the newly acquired district of Mandvee, as the urgency of the reason for issuing the notices in the old Purgunas does not exist there, and the number of notices issued seems to preclude any likelihood of being able to dispose of more notices even if issued. The term of years prescribed having nearly the whole period to run, the urgency of the investigation in this Purguna is not so great, and the notices may be issued hereafter.

6. Under these circumstances, I beg to suggest that some extraordinary



measures should be taken for the disposal of this business, which probably will be attended with advantage to Government, by the resumption of lands held without valid title, and which cannot be disposed of by the regular establishment without materially interfering with the usual course of business.

I have the honour to be, &c.

(Signed) E. G. FAWCETT,

Surat, Collector's Office, 2nd October 1849.

Collector.

# MEMORANDUM.

|  | Beegas w. ww.           | Notices.        |
|--|-------------------------|-----------------|
| Number of Notices ordered to be issued in the Surat Collectorate, excepting the Purguna of Mandvee ..... | 104,885 4 0½            | .... 15,014     |
| <i>Notices served.</i>   |                         |                 |
| Girass land .....  | 35,279 10 0             | 1,813           |
| Hareea do.....   | 349 9 5                 | 48              |
| Vechanee do.....   | 1,010 11 5              | 97              |
| Guraneea do.....   | 155 0 5½                | 24              |
| Dewusthan & Dhurmada, Pusaeeta, &c.  | 11,564 8 10             | 3,806           |
| Chakuriat or service ditto.....  | 33,737 16 5             | 8,073           |
| Wuzeefa ditto .....  | 22,788 8 10½            | 1,153           |
| Total....  | 104,885 4 0½            | 15,014          |
| Answers given within the prescribed time.  | 62,772 5 19½            | 7,929           |
| Ditto given in after the time had expired.   | 2,823 16 5              | 437             |
| <i>Notices.</i>  |                         |                 |
| Admitted for due reasons shown.  | 120                     |                 |
| Rejected .....   | 317                     |                 |
|  | 437                     |                 |
| No answers given.....  | 35,544 1 11             | 6,415           |
| Time expired.....  | 1,772                   |                 |
| Time not expired .....   | 4,673                   |                 |
|  | 6,445                   |                 |
| Notices remaining to be served.....  | 3,745 0 5               | 203             |
| Beegas..   | 104,885 4 0½            | 15,014 Notices. |
| Add number of Notices issued up to 1847 still undisposed of .....  |                         | 996             |
|  |                         | 16,010 Notices. |
|  | (Signed) E. G. FAWCETT, |                 |
| Surat, Collector's Office, 2nd October 1849.   | Collector.              |                 |

## LETTER No. 591.

To C. J. ERSKINE, Esq.,

Deputy Secretary to Government, Bombay.

SIR,—I have the honour to submit the following observations on the expediency of the enactment by the Supreme Government of India of a Rule which would place the Inam Commission on a more definite and satisfactory basis, and render it far more efficient and generally useful than it has been during its past, and what may be called probationary state of existence.

2. I earnestly solicit the attention of Government to the fact that although the Rules for determining titles to Inams, &c. which now exist have been found sufficient\* to meet the exigencies of all cases yet brought forward, and therefore no extension of *them* appears necessary, still the machinery now available for the application and enforcement of these Rules is evidently deficient, and there can be no doubt that an enactment which would remedy this deficiency, by enabling Government to commit the administration of the Rules it has approved of† to this Commission, would be of great public advantage, as tending to increase its utility in a mode which Government has already declared desirable, though obliged to abandon it for the present in consequence of the defective state of the law.

3. When the Regulations of A. D. 1827 were introduced into the Deccan, Khandeish, and the Southern Muratha Country, it was observed that the Rules contained in them for the conduct of investigations into the titles of rent-free lands were inapplicable to these provinces; and, therefore, the civil courts here established were very properly debarred by law‡ from enforcing them, the adjudication of the titles in question remaining entirely in the hands of Government.

4. But now that the establishment of the Inam Commission has rendered necessary the adjudication, in each year, of more than a hundred times the number of Inam cases previously brought forward (and this proportion must yet increase), Government has found, as stated in the Chief Secretary's letter No. 1900, dated 26th May 1847, that "the revision of each individual case imposes upon Government a degree of detail which cannot be satisfactorily disposed of with due regard to the general business which ordinarily comes before it."

\* See paragraph 2 of Government letter to the Revenue Commissioner No. 761, dated 4th February 1848.

† Namely the Rules of 1842, which have also been approved of by the Supreme Government of India and by the Honorable the Court of Directors. These Rules, with all the explanatory and supplemental instructions relating to them, have been incorporated in one code, submitted to Government by the Inam Commissioner with a letter No. 554, dated 9th May 1848.

‡ In the Deccan and Khandeish by Regulation XXIX. of 1827, Section VI.; in the Southern Muratha Country by Regulation VII. of 1830, Section II.

5. For this reason, and another equally powerful one mentioned in the same letter, Government considered that "it would be a much more satisfactory course for the decisions of the Inam Commissioner to come before Government only in the form of an appeal"; and it, therefore, prescribed a system of procedure under which a decision in each case was passed by the Inam Commissioner, subject in all cases to appeal to the Revenue Commissioner, and eventually, in a certain class of cases, to the Governor in Council.

6. But not long afterwards, as intimated in Mr. Secretary Lumsden's letter No. 4835, dated 20th November 1847, it was ruled that according to the law as it now stands "Government alone can legally resume or confirm rent-free tenures, or declare on what terms they are to be continued to the claimants"; and, consequently, Government was obliged to revert to the course of procedure which it had already found to be inconvenient and unsatisfactory,—viz. one involving a separate review and a distinct order on a report of each case, which, though not really an *ex parte* decision, has seemed obnoxious to some of the objections to which such decisions are liable.

7. Of course this system of procedure must be just as inconvenient, and just as fraught with danger of injustice now, as it was when condemned by Government in the Chief Secretary's letter No. 1900 of 1847; and surely it is an improvement to be much wished for, though it may not be inevitably necessary, that the law should be so modified as to allow of a system of procedure which is acknowledged to be preferable to that of which alone it now admits.

8. To the reasons declared by Government for desiring that original decisions should be passed by the Inam Commissioner in each case, I can add a very conclusive illustration of the advantage of relieving Government from the details of this duty, by contrasting the result of the two systems in their working. Under the old system, to which Government has now felt itself obliged to revert, there were between the establishment of the Inam Commission and the end of A. D. 1847, a period of about four years, 872 claims reported to Government, of which 862\* were decided, while during the six months (between June and November 1847) during which the system of decrees being passed by the Inam Commissioner was in force, the claims disposed of amounted to 638,† showing that the proportion of work effected under the latter system was nearly six hundred per cent. greater than that

\* In these 862 cases disposed of by Government, it was proved that lands, &c., affording an annual revenue of about Rs. 22,125, were improperly held as Inam. Of this amount, land worth Rs. 7,100 per annum has been continued as life-holdings, and the rest, worth Rs. 15,025, resumed.

† In these 638 cases decided by the Inam Commissioner, and ten others reported by him in 1847, it was proved that lands, &c. affording an annual revenue of Rs. 18,623 were improperly held as Inam. Of this amount, the Commissioner decided on continuing land, &c. valued at Rs. 3,054 per annum as life-holdings, and resuming a position worth Rs. 4,309; the remainder, worth Rs. 6,260, being left for the special consideration of Government.

under the former; the chief reason of the great proportionate increase of work done while decrees were passed by the Inam Commissioner being that in every case appealable only to the Revenue Commissioner that officer was content with statements, exhibits, proceedings, &c. in the Native language, and no time was lost in translation; and certainly any possible means ought to be at once taken to facilitate the despatch of the investigation, as there are still more than 58,000 separate holdings to be inquired into, and though it is possible that 30,545 of these (in consequence of being service holdings) may be easily and speedily disposed of, the remainder, amounting to about 28,000, being claimed as personal estates in perfect free-hold, must be carefully examined, and the merits of the title by which each is held separately investigated.

9. Another reason for obtaining the enactment suggested by me is, that, owing to obscurities in the existing Regulations, there are some doubts as to the authority of the Governor in Council himself to order the absolute resumption of estates held as Inam, however groundless may be the title by which they are held; and though these doubts may not appear, of themselves, a sufficient reason for the necessity of a new law, it would be well to have them removed by a clearer and more definite enactment than any now existing. I have, moreover, strong grounds for believing that the Court of Sudder Adawlut in this Presidency believe that some modification of the existing law is necessary to justify Government in any interference with the enjoyment of an alleged Inamdar, however unauthorised and fraudulent that enjoyment may be.

10. Lastly, it would appear, from the reply\* of the Remembrancer of Legal Affairs at Bombay to a reference recently made to him by Government, that he is of opinion that as the office of the Inam Commissioner is not one recognised by the present Regulations, it is better that Government should "keep him out of sight"; and he points out that for the same reason such an officer has no sort of authority to enforce the attendance of witnesses or the production of evidence, however indispensable it may be to a just conclusion on any claim; and I cannot help thinking that it would be far better for Government to close the Inam Commission at once than to admit of the continuance of such a defect as *this* in its constitution.

11. But the whole of the above objections seem capable of being obviated by such a simple remedy that I am inclined to hope, as I earnestly entreat, that Government will lose no more time in adopting it. The appointment of the Inam Commission was at first a mere experiment; but it has, I think, passed its ordeal satisfactorily, and its usefulness is now generally acknowledged. The justice and liberality of the Rules by which its investigations have been guided have been admitted and approved by the highest authori-

\* Letter No. 32, dated 15th April 1845, from the Remembrancer of Legal Affairs to the Deputy Secretary to Government.

ties.\* I do not therefore think that there can be any just objection raised to confer on the Inam Commission during its future existence the authority of an ordinary civil court.

12. The Act requisite for the purpose of carrying out the above objects might be a very simple one, and I have the honour to annex a sketch of the provisions which I think it should contain, though, of course, the advice of the Remembrancer of Legal Affairs would be necessary to give it a technical shape, and to supply any requisite provisions which I may have overlooked, for making it effective.

I have the honour to be, &c.

(Signed) W. HART,  
Inam Commissioner.

*Dharwar, 27th June 1848.*

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*Extract Paragraphs 5 to 16 of a Letter from the Honorable Court, No. 12,  
dated the 20th June 1849.*

Letter dated 9th November, No. 137 of 1848.

Ditto ditto 27th December, No. 173 of 1848.

We agree with you in thinking that the results exhibited in this report are highly creditable to the exertions of Mr. Hart.

Forwarding the Annual Report of the Inam Commissioner to the close of 1847, also advising the appointment of Captain Gordon as Assistant to the Inam Commissioner.

6. We observe that up to the close of the year 1847, the amount of revenue wrongfully alienated, which has been recovered by the labours of the Commission, will ultimately reach Rs. 40,740 per annum (more than one-half of which arises from lands which

have been ordered to be brought under immediate assessment, the remainder having been allowed to continue rent-free during the lives of the present incumbents), while the total cost of establishment to the same date is Rs. 66,395. In the future annual reports of the Inam Commission we desire that a tabular statement should be added, showing the number and value of the Inams which have been disposed of, distinguishing those which have been confirmed in perpetuity, those which have been at once brought under assessment, and those which are to be assessed at the death of the present or a subsequent holder.

\* See paragraphs 14 to 18 of a letter No. 25, from the Honorable the Court of Directors to the Bombay Government, dated 18th February 1846, in which they recognise the decisions of Government on the Inam Committee's reports on old Hooblee as "based on just and liberal principles," and repeat their "approbation of the spirit in which the Commission had commenced their inquiries"; hoping that the further inquiries of the Commission, and the decisions passed thereon, might be "characterised by the same spirit of liberal consideration towards the occupants as marks those which have been reported," &c. See also paragraph 22 of a letter No. 5, of the same date (18th February 1846) from the Honorable Court of Directors to the Government of Bombay, and paragraph 34 of their letter No. 2, dated 3rd February 1847, regarding of distinct cases. It is needless to cite the testimony of the Bombay Government to the utility of the Inam Commission.

7. Mr. Hart, referring to the discoveries made by Mr. Goldsmid when Superintendent of the Revenue Survey and Assessment, states that "besides the whole Mahals entirely assigned as Jagheer and Surinjam, he found about seven hundred entire villages alienated out of the Khalsat Mahals of both Collectorates (Dharwar and Belgaum), and in the balance of 2,452 villages left for Government, and Khalsat by denomination, he estimated the number of minor alienations at about sixty thousand estates, the share left for Government even in these its Khalsat villages not averaging one-half thereof."

8. The total number of claims investigated and disposed of by the Commission up to the close of 1847 appears to be 1,510,—viz. to whole villages 33, and to estates in Government villages 1,477; and it is obvious that at this rate of proceeding, the inquiry into the whole number of alienated estates, even in the two Collectorates of Dharwar and Belgaum alone, must be indefinitely protracted.

9. We observe, from your letter of the 27th December last, No. 173, that you have appointed Captain Gordon to be Assistant to the Inam Commissioner, and that Mr. Hart reports very favourably of that officer's qualifications. This arrangement will doubtless enable the Commission to proceed more expeditiously, but we are still of opinion that some further measures must be adopted for the purpose of bringing their labours to a more speedy close.

10. One of the principal causes of the delay appears to consist in the necessity of reporting each case in detail for the orders of Government. During a portion of the year 1847, the Commissioner was authorised to pass decisions on the cases as they were inquired into, subject to appeal to the Revenue Commissioner, and his progress was thereby greatly facilitated; but doubts having been raised as to the legality of this mode of proceeding, he was directed to revert to the former practice.

11. It appears to us to be altogether unnecessary that the details of every case investigated by the Commission, in which the right of the Inamdar to hold his lands rent-free in perpetuity has been satisfactorily established, should be reported specially for the orders of Government. In this class of cases the Commissioner might, we think, be permitted to pass a decision subject to confirmation by the Revenue Commissioner. The Inam Commissioner should, however, be required to report for the orders of Government all those cases in which it should appear to him that the strict application of the Rules would operate harshly towards individuals, and that there existed circumstances which would warrant their relaxation.

12. In those cases, however, in which the Commissioner's decision should be adverse to the claim of the Inamdar, we are of opinion that the latter should have the right of appealing to some superior tribunal. The appellate authority might either be the Zilla court of the district, (in which case it would be absolutely necessary that the proceedings of the Commission should be regulated by a law to be enacted for that purpose,) or, which we think the preferable course, the appeal might lie to the Revenue Commissioner, and

ultimately to the Government itself. But in every case, although the title of the claimant to hold his lands rent-free may be decided to be invalid, we desire that he be not ousted from possession, but that he be permitted to continue in occupation, subject only to the payment of the usual assessment.

13. In order to simplify to some extent this investigation, and to reduce it for the present to a practicable limit, we are desirous that the Commissioner should be directed first to turn his attention to the investigation only of claims to hold whole villages in Inam, leaving those in Khalsat villages (many of which are of small extent) for subsequent inquiry.

14. With regard to this latter class of Inams, while we would maintain the general principle that the whole of the land under cultivation is by law subject to the payment of revenue to the State, and therefore that the claimant to hold land free from assessment is bound to substantiate his title to that privilege to the satisfaction of Government, it may happen that in many instances the extent of land held rent-free is so small, and would yield so little revenue if brought under assessment, that it would not be desirable for the Government to enter on an investigation of the right of the occupant so to hold them. We wish you, therefore, to take this into your consideration, and report to us whether it would not be expedient to fix a limit (and what limit) below which no inquiries should be instituted, noticing in your report the amount of revenue that would be sacrificed by the operation of such a rule.

15. It appears that the provisions of Regulation XVII. of 1827, Chapter X., which authorise the Collectors to pass decisions on claims to exemption from the payment of land revenue subject to appeal to the Zilla Court, do not extend to the Deccan and the Southern Muratha Country so that the proceedings of the Commissioner are regulated by no law, but are subject only to the orders and directions of the Government. We think this should not be permitted to continue, and that the officers who may be employed in these investigations in the Southern Muratha Country and elsewhere should be formally vested with judicial powers, and subjected to legal responsibility. We accordingly desire that you will take these observations into your early and attentive consideration, and that you will prepare the draft of an Act for submission to the Government of India, for the purpose of carrying our views into effect. The Rules reported to us in your letter of the 24th June, No. 23 of 1840, as approved by that Government with the modification directed in our despatch of the 29th September, No. 18 of 1841, paragraph 42, should be embodied in the Act.

16. We would remark, in conclusion, that in the consideration of the question now before us, time must be regarded as an important element. That a considerable portion of the lands held as Inam in the Collectorates of Dharwar and Belgaum may, in the first instance, have been wrongfully alienated, and are now held on invalid titles, is highly probable; and every year that is permitted to elapse without judicially establishing the invalidity of the title, and restoring the revenue to the State, adds to the loss which may have been

already sustained. We should therefore not object to an increase of the agency by which these inquiries are conducted, if by that means you can bring them to a more speedy termination.

No. 157 of 1850.

6  
TERRITORIAL DEPARTMENT, REVENUE

To F. J. HALLIDAY, Esq.,

Secretary to the Government of India.

SIR,—I have been directed by the Right Honorable the Governor in Council to transmit to you the accompanying extract paragraphs 5 to 16 of a despatch from the Honorable the Court of Directors, dated 20th June last, No. 12 (see Appendix A).

2. In these paragraphs the Honorable Court has recognised the utility of the Inam inquiry instituted by this Government in the Collectorates of Dhawar and Belgaum, and forwarded several orders and suggestions as to its future conduct.

3. The Government of India will learn from the somewhat lengthy proceedings, of which the annexed paper is a summary (Appendix B), that the very important subject of facilitating such investigations has occupied the attention of this Government for a considerable period, and that the inquiries made by this Government have led to the conviction that no time should be lost in extending the scrutiny regarding the titles by which alienated lands are held and claimed to the whole of the Bombay Presidency.

4. The inability of the regular revenue officers of this Presidency to spare time from their more urgent current duties has, the Right Honorable the Governor in Council regrets to have to admit, occasioned the knowledge of the titles of holders of alienated lands throughout the larger portion of the Presidency to have remained in almost the same imperfect state in which it was on our acquisition of the country; and it is too true that lands assessable at upwards of Rs. 82,00,000 (being about a third of the gross land revenue of the Presidency) are held as wholly or partially alienated, without a sufficient knowledge on the part of Government as to its rights with respect to them.

5. This fact, and the satisfactory working of the Inam Commission in the two southern Collectorates, have satisfied this Government that the extension of similar Commissions to the rest of the Presidency will be the most advantageous arrangement, with respect to this question, which can be adopted for the determination of the respective <sup>\*</sup>rights of the State and of the holders of alienated lands.

6. The Right Honorable the Governor in Council believes that the best means of securing the efficiency of the extended investigation will be to place it under one Chief Commissioner, with Deputies and Assistants who can



devote all their time and attention to the duty. The Right Honorable the Governor in Council therefore solicits the sanction of the Government of India to whatever expenditure may be found absolutely and indispensably necessary for an establishment, European and Native, such as he may find can be most advantageously and economically used in furtherance of the important object he has in view. If the Honorable the President in Council deem fit, every fresh item of expenditure will be reported immediately on its being sanctioned by this Government, so that it may be discontinued, should it be considered by the Government of India unnecessary; but until this Government commences the proposed extension of operations, it cannot possibly form an estimate of the extent of establishment which will be required, the time which will be occupied by the members of that establishment in completing their labours, or the expense attendant thereon.

7. As directed in paragraph 15 of the Honorable Court's despatch of 20th June 1849, No. 12, the Right Honorable the Governor in Council requests that the Government of India will be pleased to pass into law the accompanying draft enactment (Appendix C) for establishing and defining the authority and responsibility of the officers appointed to conduct the Inam inquiry in the provinces to which the provisions of Regulation XVII. of 1827 do not apply. Should it be found that any modification of the law in Guzerat and the Konkan is advisable, it can be hereafter effected: as the prescriptive period of thirty years, provided by Regulation VI. of 1833, has already passed with respect to all those cases to which it is applicable, nothing will be lost on that account by deferring, for the present, to change the system of procedure; and Government would at first, therefore, prefer restricting the labours of the Commission to the Southern Maratha Country, the Deccan, and Khandeish, causing the officers to make, with all possible expedition consistent with due deliberation and consequent just decisions, a final settlement of all claims in these districts.

8. With respect to the system of procedure to be followed in districts not under the operation of Section XLIX. Chap. X. Regulation XVII. of 1827, the Honorable Court has proposed the alternative of appeals lying either to the Revenue Commissioner or the Civil Judge of the district. The Right Honorable the Governor in Council is, however, of opinion that neither of those officers could possibly spare time for the great additional work which the extended inquiry would throw upon them if this course were followed, and that, at any rate, it is evident that the Inam inquiry would proceed more satisfactorily if the Commission to which it is entrusted be so constituted that it contain in itself a provision for the adjudication of appeals; and this the Right Honorable the Governor in Council proposes effecting by employing one Commissioner, with Deputies,—the latter to pass decisions subject to appeal to the former, who should also have the duty of supervising, under the immediate directions of Government, the whole of the proceedings.

9. It is in the recollection of some of the members of Government that the

Honorable Court themselves have, with reference to proceedings in the North-Western Provinces, expressed an opinion as to the unsuitableness of Courts of Adawlut for adjudicating in such cases; but as the documents, printed or manuscript, in which this is recorded, cannot at present be traced in this office, the Right Honorable the Governor in Council can only refer to them in general terms.

10. I have also been directed to request the attention of the Government of India to the Right Honorable the President's Minute of 31st December 1849, and Mr. Hart's letter of 27th June 1848, No. 591, the former of which is appended as letter D, and the latter as letter E, to this communication.

I have the honour to be, &c.

(Signed) H. E. GOLDSMID,  
Secretary to Government.

*Bombay Castle, 7th January 1850.*

NO. 7078 OF 1850.

REVENUE DEPARTMENT.

From A. MALET, Esq.,

Chief Secretary to the Government of Bombay,

To F. J. HALLIDAY, Esq.,

Secretary to the Government of India.

*Dated 27th September 1850.*

SIR,—I have been directed by the Right Honorable the Governor in Council to request that you will have the goodness to move His Honour the President in Council to favour this Government with a reply to Mr. Secretary Goldsmid's letter of 7th January last, No. 157, proposing the extension of the Inam Commission throughout this Presidency; and with reference to paragraph 7 of that letter, and paragraph 15 of the Honorable Court's Despatch No. 127, of 20th June 1849, accompanying it, to beg that you will urge the Government of India to pass into law the draft enactment submitted by this Government on that occasion.

I have the honour to be, &c.

(Signed) A. MALET,  
Chief Secretary to Government.

*Bombay Castle, 27th September 1850.*

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No. 606.

## HOME DEPARTMENT, LEGISLATIVE.

From F. J. HALLIDAY, Esq.,

Secretary to the Government of India,

To A. MALET, Esq.,

Chief Secretary to the Government of Bombay.

*Dated 11th October 1850.*

SIR,—I am directed by the Honorable the President in Council to acknowledge the receipt of your letter No. 7078, of 27th ultimo, requesting attention to your former letter of the 7th January last, proposing the extension of the Inam Commission throughout the Bombay Presidency, and the passing of a draft Act for that purpose transmitted with your letter above alluded to.

2. The letter of the 7th January has been, I am directed to say, inadvertently lost sight of in this office, and a delay has thus occurred in replying to your communication which His Honour in Council much regrets.

3. The President in Council entirely agrees with the Right Honorable the Governor of Bombay in Council as to the expediency of completing with as little delay as possible the investigation into the Inam and other rent-free tenures within the Bombay Presidency, and he will be ready to sanction, as proposed by the Bombay Government, all such necessary expense as it may be found right to incur on that account, the several items being reported as soon as authorised by the Government of Bombay, for the approval of the Supreme Government.

4. With respect to the draft Act, the President in Council has felt a difficulty arising out of the omission, in the draft forwarded with your letter of the 7th January last, of all definition of a valid title to hold land wholly or partially free from assessment, and on account of the absence of any rules of procedure. The draft Act merely provides that officers may be appointed to investigate and decide claims to hold land free of assessment, and that these officers shall proceed according to such forms and rules as may be laid down for their guidance by Government.

5. It appears, however, from your letter, that under this very general authority to the Government to prescribe forms and rules, it is intended to erect two sets of courts, one to try rent-free claims in the first instance, and the other to hear appeals from the first. The President in Council is of opinion that this system of original and appellate jurisdiction should be distinctly authorised and provided for in the Act, and the necessary forms of procedure either laid down in detail, or else provided for by reference to the forms in use in actually existing courts, according to which the new courts may be directed to shape their proceedings.

6. Regulation XVII. of 1827 provides definitions of valid rent-free tenures,

which are probably sufficient for the purpose in view, but the President in Council is not certain that they are considered applicable to the territories of the Deccan, Khandeish, and the Southern Muratha Country. At all events, if these definitions can be used for the purposes of the new law, it will be proper that they should be referred to in it. The same law (Regulation XVII. of 1827) contains rules of procedure for Collectors when investigating in the first instance questions of the validity of rent-free holdings. Perhaps these Rules may be made applicable to similar investigations of first instance when made under the proposed law; but on this point the President in Council would be guided by the opinion of the Right Honorable the Governor of Bombay in Council.

I have the honour to be, &c.

(Signed) F. J. HALLIDAY,

Secretary to the Government of India.

*Fort William, the 11th October 1850.*

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NO. 8729 OF 1850.

TERRITORIAL DEPARTMENT, REVENUE.

To W. HART, Esq.,

Inam Commissioner Southern Muratha Country.

SIR,—I have been directed to inform you that the Right Honorable the Governor in Council has been pleased to appoint you Chief Commissioner for the investigation of claims to Inams throughout this Presidency, on a salary of Rs. 2,000 per mensem to commence from date of this letter.

2. I have also been directed to transmit herewith copy of a letter addressed to the Government of India on the 7th January last, and of its appended summary, together with a transcript of the reply of that authority, No. 606, dated the 11th ultimo, and to inform you that the first duty you have to perform is to prepare the Rules required by the Government of India, and to submit a plan of procedure and sketch of the number of Assistants and extent of establishment you will immediately require. Government depend on your attending to the very imperative necessity which there is for framing this estimate in the most economical manner that is consistent with the proper performance of the very important duties that are to be entrusted to you.

3. In paragraphs 4, 5, and 6 of their present letter, the Government of India refer to the request of this Government that the draft Act submitted to them might be passed into law. With a view to prevent litigation, and consequent excitement, His Lordship in Council is of opinion that the law should be passed before the Commissioners commence their settlements in other Collectorates than those now subjected to your inquiries, and until it is passed he will not gazette your appointment as "Chief Commissioner."

4. To the insertion in the Act of provisions for original and appellate jurisdiction there can be no objection of which His Lordship in Council is

aware; you are therefore requested to make the necessary additions, not only as regards this point, but also as regards the forms of procedure, the necessary additions for the latter purpose being made to Clause 3rd. The simple and easy manner in which claimants in the Southern Muratha Country are called upon to give their "Kyfeyuts" and adduce their proofs, and the very satisfactory and searching manner in which the correctness of the pleas and evidence advanced are tested by reference to the records in your possession, appear to the Governor in Council to show the best mode of procedure which can be adopted; additions, however, will of course be necessary to provide Rules for confirmation and appeal.

5. With regard to the insertion of Rules in the Act, the Right Honorable the Governor in Council agrees with you in thinking that it would be inexpedient to embody in the Act the details of the Rules of 1842, for it would greatly complicate the law to do so, and in case any relaxation or modifications of the Rules were rendered necessary from any circumstance, say in newly acquired territory (such as lapsed Jagheer, &c.), there would, perhaps, be the dilemma of having either to sanction measures of hardship to claimants of land or to depart from the law. The Rules submitted with your letter of the 9th May 1848, No. 544, appear to His Lordship in Council to be well fitted for adoption in the Southern Muratha Country, but they should be carefully looked over by you, and forwarded to Government with any alterations you may deem necessary, in order that they may be considered by Government, and submitted to the Government of India for approval. It still, however, appears to His Lordship in Council, that although they should be referred to, they should not be embodied in the Act; but on this point also your opinion is requested.

6. Adverting to the 6th paragraph of the letter from the Government of

Minute by the Right Honorable the Governor, subscribed to by the Honorable Board, dated 7th January 1850.

Extract paragraphs 2 to 4 of a memorandum by the Honorable Mr. Blanc, dated 19th November 1850.

Extract paragraphs 5 and 6 of memorandum by the Right Honorable the Governor, dated 23rd November 1850, concurred in by the Honorable Mr. Willoughby.

India herewith forwarded, I have been directed to annex copies and extracts of the documents noted in the margin, and to request that you will prepare, for transmission to that authority, a *resumé* of all that has passed on the subject, and also prepare a declaratory clause of the nature contemplated.

7. There is one more point of very great importance to the inquiry, to which his Lordship in Council has directed me to refer. The absolute necessity which exists for placing the Inam Commissioner, whose operations are at once to extend to all the restricted Regulation districts, and eventually to the whole of our territories, in charge of the Poona Duftur, is shown by the circumstances connected with Mr. Goldsmid being placed in charge of these records by Mr. Warden in 1842, and by the use made of those records by himself and coadjutors, and successor, in conducting their inquiries in the Southern Muratha Country; but before giving any orders on the subject,

Government wish for your opinion as to whether you think it desirable to depute Captain Gordon, or apply to Government for some other qualified officer to receive charge of them, or retain for a time Mr. Turquand's services as your Assistant.

I have the honour to be, &c.

(Signed) H. E. GOLDSMID,  
Secretary to Government.

*Bombay Castle, 28th November 1850.*

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No. 3021.

To H. E. GOLDSMID, Esq.,

Secretary to Government, Bombay.

SIR,—In conformity with the instructions contained in the 3rd and following paragraphs of your letter No. 8729, dated 28th November 1850, I have the honour to submit an amended draft of the Act required for the organisation of the Inam Commission according to the plan approved of by the Governments of India and Bombay, and beg to offer at the same time the following explanations regarding it.

2. In examining the amended draft, it will, I think, be found that the first point requiring discussion is the assertion recited in the preamble that the adjudication of claims against Government for Inams, &c. are not only excepted, in the territories to which the Act relates, from the cognisance of the civil courts (which they are by Regulation XXIX. of 1827, Section VI. and Regulation VII. of 1830, Section II. &c.), but that they are, moreover, incapable of being justly disposed of under the Rules contained in Chapters IX. and X. of Regulation XVII. of 1827.

3. In treating of this subject, I shall first endeavour to carry out the instructions contained in the 6th paragraph of your letter under reply; and I think that the most satisfactory mode of doing this will be to divide the question of the applicability or otherwise of the Rules of Chapters IX. and X. of Regulation XVII. to the Deccan, &c. into two other questions,—*first*, whether or not those Rules *do* apply to the districts in question; *secondly*, whether or not they *ought* to do so.

4. The final settlement of these questions is rendered the more desirable from a suggestion made by the Government of India in paragraph 6 of Mr. Secretary Halliday's letter No. 606, dated 11th October 1850, that it might, perhaps, be right to adopt, in the proposed inquiry, the Rules of Regulation XVII. of 1827, both for defining titles and for pointing out the mode of procedure in inquiring into them.

5. It is evident that of the two questions stated in my 3rd paragraph the

second is of by far the greater importance; for if it can, as seems beyond all doubt the case, be answered decidedly in the negative, the answer to the first question is of importance only for the purpose of deciding whether the proposed enactment should repeal the Rules in question, or simply declare them already inapplicable,—a matter of not much final moment.

6. It will for this reason be well to consider first the more important question as to whether or not the Rules contained in Chapters IX. and X. of Regulation XVII. of 1827 *ought* to be enforced in the Deccan, &c. during the proposed general scrutiny of titles to Inams. I beg, therefore, to submit my reasons for considering that they ought not to be now enforced in these districts.

7. Chapter IX. of Regulation XVII. defines titles to exemption, and some of its clauses are open to the following amongst other objections. It will be seen that some of the objections which I make to this Chapter and the next (Chapter X.) apply to them as law in *any* territories; but that does not render the objections less material in the Deccan, Khandeish, and Southern Muratha Country:—

1st.—Section XXXV. Clause 1st seems at first sight unobjectionable, and, so far as its text goes, agrees with the first of the Rules of 1842 now used in the decision of claims in the Deccan, &c. by Government, as prescribed by the Government of India with the sanction of the Honorable the Court of Directors. But a comparison of this 1st Clause of Section XXXV. with Section XXXIX. Clause 1st, and its Appendix C, shows that, at least, some of the persons recognised by it as “public officers possessing authority to grant, &c.” were persons who *most certainly had not* any such authority (as “Sirsoobadars,”\* and other “local functionaries acting directly under the Peshwa, before 1803”); while, on the contrary, other persons, who *as certainly had* such authority, (as the Savanoor Nuwab,†) must not, according to Regulation XVII., be recognised as authorised grantors, without special proof of what every one in the country is aware of. These facts, besides causing an intrinsic objection to the Rule, also show that it was *not intended* to be applied to the Southern Muratha Country, &c.

2nd.—Clause 2nd of the same Section (XXXV.) recognises a prescriptive title to exemption acquirable by “any person, his heirs, or others deriving right from him,” who have held for sixty years under any “recognised tenure”; but there is nothing to define the duration of the exemption for the future, nor to what heirs it is continuable (and this is a defect throughout the whole of the Rules in the Chapter admitting exemption); and it is remarkable that of the thirteen tenures enumerated in Appendix A to this Section as “tenures that may be considered as recognised by the custom of the country,” only four are known, or even defined in a language known in

\* I do not consider it necessary to here repeat the proof of this assertion, the correctness of which has been on a former occasion admitted by Government.

† See Government letter on the Murdoor Case, No. 4196, dated 23rd December 1843.

the Deccan and Southern Muratha Country, and two of these four (Wutun\* and Meeras) are not used to define tenures exempting land from assessment. This fact also shows that the Rule in question was *not intended* for adoption in these districts.

3rd.—Clause 3rd of the same Section (XXXV.) holds that enjoyment of exemption for twelve years before the territory where the exempt land is situated came into the possession of the British Government shall be equivalent to the enjoyment for sixty years treated of in Clause 2nd. But such a clause would be wholly unjust to Government in a territory like the Deccan, Khandeish, or Southern Muratha Country, where for more than the twelve years in question all sorts of fraudulent acquisitions of land took place, and where, as remarked by Sir T. Munro,† “every one, from the Kurnum of a village to the Sursoobha of the Carnatic,” fraudulently alienated Government land. What would render the application of such a rule in these territories the more unjust is that from the succeeding clauses it appears that the proof of realization of revenue (which realization is the only bar to exemption) is to be thrown upon Government; for it would be utterly impossible to prove such realization, owing not only to the frequently disturbed state of the country, but to the fact that it was generally managed by farmers under the Peshwa, who did not render detailed accounts of their realizations. The same objection applies to the remaining clauses of this Section (XXXV.), and to both clauses of Section XXXVI., the enforcement of which in the new provinces would be, so far as regards this point, very unjust.

4th.—Clause 1st (the only one) of Section XXXVII. is open to the same objections as Clause 1st of Section XXXV., remarked on above.

5th.—Clauses 2nd and 3rd of Section XXXVIII. seem generally objectionable‡ (and uselessly so), in providing for what is nothing but the *enforcement* of idolatrous expenses under another name; for of course, rather than have the land assessed, the holder of a Dewasthan Inam will perform all the rites for which he holds it. I would not advocate any interference to *force* the Natives away from idolatry, but surely a rule which *forces* them under a penalty to its continuance is an erroneous one, and any one who has seen the carvings on many temples and idols' chariots in this part of the country, and especially in its southern districts, in which every possible and impossible variety of natural and unnatural lust and obscenity is pourtrayed, would feel ashamed of having in any way been accessory to

\* Land included in a Wutun may or *may not* be exempt. In some cases, as the Chalee and some Joorce lands of Wutundars in Sholapore and the Southern Muratha Country, Wutun lands are the most highly assessed. The same is almost always the case with what is known in the Deccan as Meeras.\*

† See his letter to Mr. Elphinstone, dated 29th August 1818.

‡ The 1st Clause of Section XXXVIII. is a desirable one, and I propose to introduce it into the standard code. See Section IV. of the draft Act.



the introduction of a rule which tends to *enforce* the continuance of the superstition to which such worse than beastly representations belong.

6th.—My objections to Section XXXIX. (the last Section of the Chapter) have been above stated, when considering Section XXXV. Clause 1st.

7th.—In conclusion, I have to object to the introduction of the Rules of Chapter IX. of Regulation XVII. of 1827, that even if they were not *in themselves* unjust, they are not so fair or so well adapted for the definition of titles as the Rules by which Government now adjudicates claims to Inams in the Southern Muratha Country.

8. I shall now proceed to explain why I think that the Rules of Chapter X. of Regulation XVII. ought not to be applied in the approaching scrutiny in the new provinces :—

1st.—The Collector alone is authorised to institute the inquiry.

2nd.—An inquiry is provided for only when the Collector has some tangible reason for believing land improperly held, and there are no provisions for a *general* scrutiny of titles, such as that now instituted.

3rd.—The proceedings prescribed may be very tedious and vexatious to all parties, without obtaining greater benefits than more simple procedure would ensure.

4th.—Some of the procedure *may be* absurd : for instance, by Section XLV. it is held that “if the decision of the Collector be in favour of the right of the holder to enjoy the land as previously, such decision shall, after being communicated to the party, be reported by the Collector to Government, and, *if sanctioned by Government*, shall be final.” But what if Government refuses its sanction ? Government cannot expect the Collector, in such a case, to pass a new decision of his own to stultify the one he has already made ; and yet it will be seen from the context of the whole Regulation, that to admit of assessment legally there must be a decision made by the Collector himself (and not merely by Government) against the right of the holder.

9. Having thus stated my reasons for thinking that the Rules of Chapters IX. and X. of Regulation XVII. *ought not* to be applied in the new provinces, I shall try to explain why I consider that they *do not* ; but before doing so, I would mention, in anticipation of my exposition of this result, that though my own opinion is what I have just stated, I have considered it right, in preparing the preamble and 1st Section of the amended draft Act now submitted, to endeavour to do so in such a manner as to prevent its terms from contradicting the opinions of either those who may agree, or those who may disagree with me in this matter, which is in fact one of not much importance, when once the second question stated in paragraph 3 has been settled.

10. My first reason for supposing that the Rules of Chapters IX. and X. *do not* apply to the new provinces is that the only mode of enforcing them was purposely withheld by Regulation XXIX. of 1827, Section VI., and Regula-

tion VII. of 1830, Section II. &c. It may, of course, be said that as the *law* was not suspended in terms—though the means of enforcing it were—it is still as much law as if it could be enforced; but I cannot think so lowly of the framers of Regulations XXIX. of 1827 and VII. of 1830 as to imagine that they intended by those Regulations to introduce a law with the intention of its remaining law, while they expressly enacted a reservation which must make it practically null. I would rather think that they intended, by taking steps for preventing the enforcement of the law in question (when generally introducing the Regulations into the new provinces), to make the whole of the law inapplicable in practice, as it is in equity.

11. My next reason for supposing that this was the intention of Government, in framing Regulations XXIX. of 1827 and VII. of 1830 as they did, is that I have in vain sought for a single instance of a claim to exempt lands having been adjudicated according to the Rules of Chapters IX. and X. of Regulation XVII. of 1827. This is *of itself* a strong fact, and I think it greatly corroborates the argument stated in the preceding paragraph; for it must be supposed that Government, who framed Regulations XXIX. of 1827 and VII. of 1830, if they had thereby intended to introduce the procedure, &c. of Regulation XVII. into the new provinces, would have adhered to it; whereas every decision I have been able to find,—and they are very many,—is made not only without reference to the Rules in question, but in a manner irreconcilable with their provisions; and this has been the case from the time of the introduction of the Regulations generally into this province until the present hour.

12. Again, there are many declarations by Government, both express and implied, which show that the Rules in question were never looked upon by their framers as law in the new territories. It would be, of course, superfluous in me to quote such declarations; but I think it may be useful to bring to the notice of Government a remarkable instance of one such declaration having been strangely perverted into meaning what it did not, by the passing of Regulation VI. of 1833 as it now stands. I am the more inclined to venture to do this as the Honorable Mr. Blane (in the 3rd paragraph of his Minute of the 19th November 1850) seems to think that the last-mentioned Regulation\* may interfere in some way with the proposed Act.

13. The circumstances to which I allude are briefly these:—In July 1832 Government commenced a correspondence with the Revenue Commissioner and Collectors, which resulted in the Revenue Commissioner being ordered

\* I would with much deference suggest, that as Regulation VI. of 1833 is only a supplement to Regulation XVII., and avowedly intended to modify some of its rules, the repeal of those Rules might perhaps be looked upon as *ipso facto* making the Regulation, which is only a modification of them, void. Still, to avoid any doubt, I have considered it better in the draft Act to refer expressly to Regulation VI. of 1833, as well as to that of which it is a supplement.

to draw up a draft Regulation, summing up the points of the intended law (now Regulation VI. of 1833), with certain restrictions which it was considered necessary to insist on. These restrictions were to prevent (in any territories) the application of prescriptive title to lands alienated under the present Government, or held for a certain term, and also to forbid (in territories ceded by or conquered from the Peshwa) the recognition of any recent grants made without the authority of the ruler of the country himself, which were resumable under the Rules framed by the Commissioner in the Deccan.

14. The Revenue Commissioner's draft of the intended enactment was approved of by Government, and forwarded to the Judges of the Sudder Adawlut with the Secretary's letter No. 576, dated 19th February 1833, not for the purpose of being altered in *meaning*, but simply to be put in such a *shape* as might adapt it to the general Code.

15. The last Section of the Revenue Commissioner's draft was as follows :—

“Neither shall the above rule apply to grants made without the authority of the Peshwa since 1803, which are liable to resumption and assessment under certain Rules prescribed by Government, or to lands held on the service tenure, which are resumable at the pleasure of Government.”

16. By the 1st Clause of this Section, Government intended to exclude the Rule of Regulation VI. of 1833 from taking effect in the new provinces, where the Commissioner's Rules (since modified by those of 1842) were in force; the one of those Rules which was especially in their recollection, as necessary to retain in force, being the following :—

“All grants made without the Peshwa's authority since 1803 liable to resumption; but if held for the last ten years (from A. D. 1809), to be assessed at only half the full rent, and at the full rent on the death of the present incumbent.”

The latter Clause of the Section was evidently intended to reserve, unprejudiced by any prescription, the right vested in Government of at any time resuming Jagheers, “under the general rules at the pleasure of Government,” as provided for by Clause 1st Section XXXVIII. of Regulation XVII. of 1827.

17. A comparison of the meaning and words of the Commissioner's Rule quoted in the last paragraph, and those of the Clause of the draft Regulation, approved of by Government, and quoted in paragraph 15, in which the very terms of that Rule are recited, will at once show that the Commissioner's Rules (now represented by the amended Rules of 1842) were observed in the new provinces; and if so, then the Rules of Regulation XVII. of 1827 could not have been in force, as they are irreconcilable with the Commissioner's.

18. But the Judges of the Sudder Adawlut not *only* altered the *shape*, but the whole *intention* of the proposed law. They confused the “certain Rules prescribed by Government,” which really meant the Commissioner's Rules applying to grants made since 1803, with “the general Rules” alluded to in the 1st Clause of Section XXXVIII. of Regulation XVII., which applied only

to Jagheers; and so, taking it for granted that to recite both, as the Revenue Commissioner had *correctly* done, would be a mere repetition, they *shaped* the Clause so as to supersede the Commissioner's Rules, which it was intended by the legislature to preserve in force.

19. That such a mistake should have taken place seems so nearly incredible, that I may be excused for quoting the letter of the Assistant Register proving that it did occur. In this letter, No. 28, dated 18th March 1833, he says :—

“I am directed by the Judges of the Sudder Dewanee Adawlut to remark that the expression ‘certain Rules,’ which occurs in Clause 2nd, Section II. of the Revenue Commissioner's draft, and *taken probably from Clause 1st, Section XXXVIII. of Regulation XVII. of 1827*, being liable to misconstruction, by application to the general or particular Rules of the Code, instead of Rules issued by the Government at its discretion, which was *perhaps* intended by the legislature, it has in the draft now submitted been left out, and the *corresponding one* of the last-quoted Regulation explained.”

20. Unfortunately, Government did not observe the error into which the Judges had fallen; and the consequence was, that instead of a provision retaining the force of the Commissioner's Rules being, as intended, inserted in the Regulation, it was finally passed without such provision.

21. The first consequence of this was the alteration of the law itself from what was intended by Government, as shown by the following contrasted statement of the clause which the Judges of the Sudder Adawlut were directed by Government to frame in legal phrase, and the clause which has actually become law instead of it :—

*Clause approved of by Government in communication with the Revenue Commissioner, and sent to be shaped by the Judges of the Sudder Adawlut.*

*Clause as shaped by the Judges of the Sudder Adawlut, and actually passed into Law as Clause 3rd, Section I. of Regulation VI. of 1833.*

Neither shall the above Rule apply to grants made without the authority of the Peshwa since 1803, which are liable to resumption or assessment under certain Rules prescribed by Government; or to lands held on service tenure which are resumable at the pleasure of Government.

Neither shall the above Rule be deemed to apply to grants made without the authority of the Peshwa since A.D. 1803, regarding territory ceded by or conquered from that authority; nor to Jagheer or other lands held on service tenure, which are declared to be resumable at the pleasure of Government, under the forms laid

down in Clause 1st, Section XXXVIII. Regulation XVII. A. D. 1827, it being understood that the expression used in the said Clause, viz. “under the general Rules,” meant such Rules as Government may think proper to issue from time to time.

22. Thus, in the Regulation actually passed, the (Commissioner's) Rules, which it was the deliberate intention of the legislature to retain in force by an express provision, are altogether lost sight of.

23. But even as this Regulation VI. of 1833 now stands, it seems to afford proof that neither its rule of thirty years' prescription, nor the Rules of Chapter IX. &c. of Regulation XVII. of 1827, which it was framed to modify, were at any time capable of application to the new provinces. This may, I think, be shown by the following case :—On the 2nd of January 1834, the Poojaree of Hunneymaun is found in possession of land in the Deccan held by him as a Dewusthan Inam. On being called to prove his title to it, he produces a writing dated on the 1st January 1804, executed by a farmer of the village in which the land is situated, granting the land to him in perpetuity as Dewusthan, and further shows that he has since held it unquestioned as such. It is objected that the deed is an invalid title, being executed without authority. He then pleads that, even if so, he has held it for more than thirty years, and, therefore, by Regulation VI. of 1833 his prescriptive title is perfect. To this it is objected that the prescription of thirty years recognised by that Regulation is by its 3rd Clause inapplicable to his grant, which is “a grant made without the authority of the Peshwa since 1803,” and that, therefore, though he has held it for thirty-one years, he has no prescription to plead under that Regulation. He can then reply—If I have held it for thirty-one years up till to-day, I have, in so doing, held it for twelve years before the close of A. D. 1817 (the introduction of the British Government), and, therefore, for sixty years according to Regulation XVII. of 1827, Section XXXV. Clause 3rd, which gives me full prescriptive title according to Clause 2nd. If it be admitted that the Regulation last quoted is legally applicable to the Deccan, &c. this plea is good; but then, what is the consequence with regard to Regulation VI. of 1833? The restriction provided by its 3rd Clause is defeated and laughed at in the very territory for which it was enacted!

24. In such a case, even as Regulation VI. of 1833 now stands, the only way in which its 3rd Clause can be understood as not absurd is in believing that the Sections of Regulation XVII. of 1827 to which it relates were not previously applicable to the territory recently obtained from the Peshwa, though, of course, this would have been more unquestionably evident if the instructions of Government had not been disobeyed in its preparation.

25. Thus everything connected with the Rules of Regulation XVII., Chapters IX. and X., and their modifications by Regulation VI. of 1833, leads me to the conclusion that those Rules are inapplicable, and were not intended by the legislature to apply to the new provinces. Still, as I have premised above in paragraph 9, I have endeavoured to prepare the draft Act now submitted, so as to contain not only a declaratory but a repealing sense, in order, to meet both opinions regarding the present actual state of the law.

26. I shall next proceed to offer any observations which strike me as

necessary regarding the terms of the draft Act as now amended according to the instructions contained in your letter under reply.

27. Section I. will set at rest all doubt regarding the question which has occasioned the confusion and difference of opinion above referred to, by definitely excluding the operation of the Rules of 1827 from the provinces to which they are so evidently inapplicable.

28. Section II. provides for the organisation of an Inam Commission (or more than one if necessary) in the new provinces, viz. the Deccan, Khan-deish, and Southern Muratha Country, as well as in any other territories more recently annexed, as Mandvee, Colaba, Sattara, &c. or which may possibly be annexed hereafter.

29. Section III. contains Rules for procedure, being those found by experience in the Southern Muratha Country most convenient to the claimants as well as the officers of Government. More than twenty thousand claims have been received and recorded according to this procedure, and Government is aware how few complaints have been made by claimants (certainly not one for each thousand of inquiries instituted) regarding the mode in which their statements and evidence have been received and recorded. The procedure prescribed in the Rules of this Section is, in fact, that followed at present, and approved by Government in paragraph 4 of your letter under reply, with such alterations providing for decrees, appeals, &c. as will make it applicable to the extended Commission.

30. Section IV. is drawn up in conformity with instructions contained in your 5th paragraph. With regard to the close of that paragraph, in which my opinion is required, I beg to state that I consider the plan approved of by the Right Honorable the Governor in Council as the most satisfactory, and, in fact, the only one which can be reasonably adopted. The Code of Rules to which this Section is intended to apply shall be sent to you in a few days with another letter, and after they are approved of, by notification or otherwise, the blanks now left in Section IV. of the draft Act can be filled in.

31. Section V. is merely adapted from the Regulation of 1827, which gives Collectors, when employed in Inam inquiries, the jurisdiction of civil courts, so far as relates to the power of issuing summonses, taking evidence, &c. A provision of this nature is, of course, required in any department where evidence is taken.

32. Section VI. is adapted in the words of Regulation XII. of 1827, Section VIII., being merely so far altered as to be made applicable to the establishment of the Inam Commission, instead of to that of the Magistrate.

33. Section VII. is to protect persons discharging in good faith the duties provided for by the enactment from being subjected to litigation for doing so. It is so framed as not to relieve them from the liability of having to answer for

such abuses as those described in Section III., nor for unauthorised Acts cognisable by civil courts under Section XXII. of Regulation II. of 1827.

I have the honour to be, &c.

(Signed) W. HART,  
Inam Commissioner.

*Belgaum, 30th December 1850.*

No. 3022.

To H. E. GOLDSMID, Esq.,

Secretary to Government, Bombay.

SIR,—In the 5th paragraph of your letter to my address No. 8729, dated 28th November 1850, you convey to me the order of Government that I should carefully revise the compendium of Rules formerly submitted with my letter No. 544, dated 9th May 1848, with a view to their being submitted for approval to the Government of India, as the Code to be referred to in the Act required for the organisation of the Inam Commission, in the manner approved of by Government and the Honorable the Court of Directors.

2. In the revised draft Act submitted by me with my report No. 3021, of the 30th December 1850, Section IV. refers to this Code of Rules when it shall have been approved, and I have now the honour of forwarding a revised draft of it, made applicable to the Deccan, Khandeish, and the Southern Muratha Country, for the consideration of Government.

3. In order to prevent the necessity of a reference to my former letter, No. 544, dated 9th May 1848, I shall repeat such parts of it as are applicable to the revised Rules now submitted, so as to let it be *entirely superseded* by this letter.

4. The Code or compendium of Rules now submitted is simply an adaptation of the Rules proposed by the Bombay Government, in the Acting Chief Secretary's letter No. 3667, dated 19th December 1839, and amended in 1842, in which are restored a few terms which existed in the Rules as generally approved of by the Honorable the Court of Directors in their despatch No. 18 of 1840, paragraph 42, but which were omitted (though evidently without intention) in the Code circulated with the Government letter No. 1949 of 1842.

5. The Rules in question were in the first place proposed for the adjudication of claims to money and grain allowances, but were made applicable to the case of rent-free lands &c. in the Deccan, Khandeish, and Southern Muratha Country, at the proposition of the Bombay Government, contained in the Chief Secretary's letter No. 2906, dated 21st September 1839, which proposition was approved of by the Government of India in a letter No. 263, dated 4th November in the same year, and finally by the Honorable the Court of Directors, in their general sanction of the Rules.

6. In arranging the Rules of 1839 and 1842 into the Code now submitted, I have avoided, as far as possible, the proposition of any new principle, almost the only additions which I have suggested to the Rules themselves being interpretations, all of which have already been approved of by Government, with the exception of two or three now first proposed on grounds which I shall explain below.

7. But though I have not attempted to interfere with the principles of the Rules of 1839 and 1842, I have, for the sake of convenience, altered their arrangement, in reducing it to a more systematic division into heads or "articles." The first article disposes of every Inam, of whatever denomination, already specifically guaranteed as permanent by a competent authority under the present Government; the second, of all personal Inams not coming under the above head,—and these again are divided into Sunudee or authentic, and those which are merely prescriptive; the third article comprehends all Inams *primâ facie* permanent from the nature of the object for which they are claimed, keeping in view a similar sub-division; the fourth provides for the widows of the last incumbents of all lapsed holdings; the fifth reserves the present right of Government over Surinjams and other tenures of a political and ministerial nature; and the sixth vests Government with the power of modifying *in favour of claimants* any of the Rules of the Code,—a power which is now vested in the Government of India,—and of interpreting the meaning of any part of it respecting which a doubt may occur.

8. Should any of the Rules or propositions of the Code now submitted, or the terms in which they are expressed, be considered open to objection, I would respectfully beg that Government will not proceed to any final condemnation or rejection of them without first giving me an opportunity of explaining more fully my reason for proposing them. So far, however, as I can judge, the only points connected with this Code which seem to require any particular explanation are the following.

9. *Rule I. of Article I.*—This Rule is slightly altered from the 4th Rule of the 1st Division of the Rules of 1839 and 1842, in extending the validity of declarations by the *Bombay* Government, and competent officers acting under it, to those of the *British* Government and competent officers acting under it, in order that guarantees by certain Military Commanders who commenced the settlement of this country (as Sir Thomas Munro, Sir J. Malcolm, &c.), and those of the Commissioner in the Deccan, &c. before its annexation to Bombay, may be comprehended by the Rule. The word "British" is, in fact, used in paragraph 3 of the letter No. 116, of the 22nd July 1839, from the Government of India to that of Bombay, from which letter the Rule in question originated. The words "specific and absolute" are inserted to prevent for the future the possibility of provisional or conditional declarations of a general nature from being regarded as absolute ones, without examination as to whether or not the provisions were applicable, or the condi-



tions fulfilled in particular cases. This addition will obviate a mischievous error of frequent occurrence. The words "previous to the passing of the Charter of A. D. 1833," which existed in the original Rules of 1839 and 1842, have been omitted from that now submitted for approval as superfluous, after the change of the word "*Bombay*" to "*British*," as noticed above.

10. *Rule I. of Article II.*—This Rule is a slightly amplified version of Rule I. of the first division of the Rules of 1842.

11. *Provision 1 of Rule I. of Article II.*—This Provision will not necessarily dispossess any person who may be found holding an Inam under the Sunud of an incompetent authority; it will merely transfer the adjudication of his claim from the first to the second Rules of this Article; and he will still have the advantage of any prescriptive right to which the length of his possession may, under that Rule, entitle him.

12. *Provision 2 of Rule I. of Article II.*—This Provision is new one, the power of applying which in extreme cases is necessary on grounds of public policy. It is one, however, the application of which will of course be very unfrequent. The power of appeal provided by the proposed Inam Inquiry Act will prevent any unnecessarily harsh application of it.

13. *Provision 3 of Rule I. of Article II.*—This Provision is added to carry out the principle laid down in paragraph 5 of the Government letter No. 3329, dated 28th September 1844; and is, at any rate, required to make the Rule reasonable.

14. *Provision 4 of Rule I. of Article II.*—This Provision may at first sight appear unnecessary in addition to Provision 3. It is, however, proposed in order to embrace cases not comprehended by the latter, such as one in which it is clear that the revocation, alteration, or annulment of a grant (though such alteration, &c. may not have been *mule* by the order of a competent authority, as contemplated in Provision 3) was *recognised* by such authority; as, for instance, when a former Inam is entered in an altered condition in authentic accounts either emanating from or passed at the Hoozoor. Thus an estate may have been originally granted or recognised by a competent authority as Surv Inam, but is found included in all authentic accounts, towards the close of the late Government, among lands subject to full assessment as Khalsat, or to a partial assessment, which was looked upon by the Sirkar as part of the authorised revenue of the district. In this case, though it cannot be discovered when, or by whose order, the assessment was imposed, it is evident that it was approved of by competent authority, and ought to be continued, which it would be under this Provision.

15. *Rule II. of Article II.*—The several sections of this Rule are composed of Rules 1, 2, and 3 of the second division of the Rules of 1842, slightly modified. The word "undisputedly" is introduced, because "undisputed" possession is made a condition by the Honorable Court of Directors in paragraph 42 of their despatch No. 18, dated 29th September 1840, when sanctioning the principles of the Rules in question. The word "authorised"

is retained because it appears in the original Rules sanctioned by the Court at the same time, and because the *only relaxation intended* in the original Rules, by the substitution of those of 1842, avowedly was the mere alteration of the term of one hundred years and three descents to that of sixty years and two descents. The words “before the introduction of our Government” are retained for the *same reason*, and because the principle they uphold has been elsewhere insisted on, as appears from paragraph 7 of the letter from the Bombay Government to the Government of India, No. 3667, dated 19th December 1839, and a letter No. 928 of 1841 from Government to the Collector of Khandeish. The words “at least” are added because they were inserted in the Honorable Court’s despatch No. 18 of 1840, above quoted, apparently as one of the conditions on which the Rule of one hundred years and three lives, which had been proposed to them by the Bombay Government, was to be relaxed.

16. *Provision 1 of Rule II. of Article II.*—This Provision is proposed to prevent such unauthentic holdings as are admitted only in district accounts not passed at the Hoozoor, from being necessarily excluded from the benefits of Rule II. Of course if a village, &c. be specifically mentioned in the Hoozoor accounts as Khalsat or resumed, or if those accounts contain general entries showing that it was regarded by Government as Khalsat subsequent to its alleged grant as Inam, its admission as Inam in the unpassed accounts of a Mamlutdar cannot be looked upon either as authorised or undisputed. But *otherwise* this provision will enable prescriptive enjoyment to be reckoned on the duration of an Inam existing by the sufferance of a mere subordinate officer.

17. *Provision 2 of Rule II. of Article II.*—This Provision is proposed to carry out the principle recognised by Government in the Revenue Secretary’s letter No. 3753, dated 31st July 1845.

18. *Provision 3 of Rule II. of Article II.*—This Provision is now first proposed, as I cannot find any explicit declaration of Government on the subject to which it relates.

19. *Rule III. of Article II.*—This Rule is an adaptation of Rule IV. of the second division of the Rules of 1842.

20. *Provision 1 of Rule III. of Article II.*—This Provision is made in conformity with the Government letter No. 3329 of 1844, paragraph 3.

21. *Provision 2 of Rule III. of Article II.*—This Provision is founded on the same 3rd paragraph of the Government letter No. 3329 of 1844, and is, at all events, requisite and just.

22. *Rule I. of Article III.*—This Rule corresponds with Rule II. of the first division of the Rules of 1842.

23. *Provision 5 of Rule I. of Article III.*—The extension in Dewusthan and similar holdings of the advantages of full prescriptive enjoyment, from occupation of sixty years, and at least two descents, to occupation for forty years, irrespective of the number of descents, is proposed on the principle that

the limitation of *future* continuance for a certain number of years or descents is inapplicable to *such holdings*, and if there be reason for continuing them at all (except as an indulgence to present incumbents), they should be altogether permanent. This principle has been admitted by Government in several decisions on Dewusthan Inams in Talooka Nowlgoond, though it is more liberal than that proposed in paragraph 6 of the Inam Committee's Report No. 77, dated 12th December 1844, on the Dewusthans of old Hooblee, approved of by Government in a letter No. 1553, dated 8th April 1845.

24. *Provision 6 of Rule I. of Article III.*—This Provision is in conformity with the principle laid down by the Government letter No. 3753 of 1845.

25. *Provision 7 of Rule I. of Article III.*—This Provision is added to enforce the principle laid down by the Government letters Nos. 1250 and 1258, both dated 17th April 1843.

26. *Provision 8 of Rule I. of Article III.*—The indulgence proposed in this Provision was suggested by the Inam Committee's Report No. 77, dated 12th December 1844, paragraph 10, and approved of by the Government letter No. 1553, dated 8th April 1845.

27. *Rule II. of Article III.*—This Rule is an extension and explanation of Rule III. of the first division of the Government Rules of 1842.

28. *Provision 7 of Rule II. of Article III.*—This Provision is comprised in Rule III. of the first division of the Government Rules of 1842, where it seems somewhat out of place as part of the Rule. In conjunction with Provision 5 of this Rule, it will prevent merely prescriptive Inams from being recognised as official ones, unless they have been held as such from the *earliest* period to which forthcoming evidence goes back: *e. g.* an Inam held as "Gram Joshee's Inam" for an unknown period, and through an unknown number of descents, shall be continued as official Inam if there are no records of time when it was not so held; but if held even through more than sixty years and two descents before the introduction of the present Government as "Gram Joshee's Inam" it shall nevertheless be reckoned only a personal Inam if there be records of still older date which show that it was not originally an official holding. This of course will not necessarily occasion its resumption, as it will still be permanently continuable under Section I. of Rule II. of Article II.

29. *Rule I. of Article IV.*—This corresponds with the Rule contained in the third division of the Government Rules of 1842.

30. *Provision 1 of Rule I. of Article IV.*—This Provision is added to secure to the widows of authentic or recognised Inamdars the right conceded to them by the Government letters No. 850, dated 9th March 1839, and No. 3238, dated 10th November 1842, forwarding an extract from a letter from the Honorable Court of Directors, No. 9 of 1841.

31. *Rule I. of Article V.*—This Rule is desirable to prevent any idea arising that the tenures to which it relates are affected by this Code, which applies to tenures free of service or considerations of political expediency.

32. *Article VI. of Rule I.*—This Rule is proposed to prevent an inevitable

finality in the Rules, which might be fraught with hardship to claimants under peculiar circumstances, such as those contemplated in the 5th paragraph of your letter No. 8729 of 1850, as possible in newly acquired territory, &c. and further to reserve to Government the right of declaring what they intended by these Rules, in case the meaning of them may be questioned.

I have the honour to be, &c.

(Signed) W. HART,  
Inam Commissioner.

*Belgaum, 1st Janüary 1851.*

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No. 3260 of 1851.

TERRITORIAL DEPARTMENT, REVENUE.

From H. E. GOLDSMID, Esq.,

Secretary to the Government of Bombay,

To F. J. HALLIDAY, Esq.,

Secretary to the Government of India.

SIR,—I have been directed by the Right Honorable the Governor in Council to forward to you copy of a letter which I addressed Mr. Hart, the Inam Commissioner, on receipt of your letter of 11th October last, No. 606, and of that officer's reply dated 30th December last, No. 3021.

2. The accompaniments to that letter were carefully considered by the Members of this Government, and altered by Mr. Hart so as to give effect to the views expressed in their Minutes of Council, which were placed before him for the purpose on his visiting Bombay.

3. They were then forwarded to the Legal Remembrancer, for the correction of any errors or indistinctness in the wording. A few amendments of the draft Act were made by that officer, but he saw no occasion to alter the Rules. Copies of the two papers (draft Act and Rules) as received back from him are herewith forwarded.

4. In paragraph 3\* of your letter of 11th October last, an opinion has been expressed as to the expediency of completing the investigation into, and settlement of Inams at an early date, and His Lordship in Council therefore trusts that a consideration of the reasons given in paragraph 3 of the accom-

\* "3. In paragraphs 45 and 46 of their present letter, the Government of India refer to the request of this Government that the draft Act submitted to them might be passed into law. With a view to prevent litigation and consequent excitement, His Lordship in Council is of opinion that the law should be passed before the Commissioners commence their settlements in other Collectorates than those now subjected to your inquiries, and until it is passed he will not gazette your appointment as Chief Commissioner."

panying letter to Mr. Hart will induce the Government of India to pass the draft Act into law at a very early date.

I have the honour to be, &c.

(Signed) H. E. GOLDSMID,  
Secretary to Government.

*Bombay Castle, 22nd March 1851.*

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No. 386.

HOME DEPARTMENT, LEGISLATIVE.

From A. R. YOUNG, Esq.,

Under-Secretary to the Government of India,

To J. G. LUMSDEN, Esq.,

Secretary to Government, Bombay.

*Dated the 20th June 1851.*

SIR,—With reference to previous correspondence on the subject, I am directed to forward, for submission to the Right Honorable the Governor in Council, the accompanying draft of a proposed Act “for adjudication of titles to certain estates claimed to be rent-free in the Presidency of Bombay,” and to request that His Lordship in Council will favour the Supreme Government with any observations or suggestions on its provisions which may appear to be necessary.

I have the honour to be, &c.

(Signed) A. R. YOUNG,  
Under-Secretary to the Government of India.

*Fort William, the 20th June 1851.*

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No. 7096 OF 1851.

TERRITORIAL DEPARTMENT, REVENUE.

To W. HART, Esq.,

Inam Commissioner.

SIR,—With reference to your letter No. 3021, dated the 30th December 1850, I have been directed to transmit, for any observations you may have to offer, the accompanying draft Act received from the Government of India, (with red ink alterations as it stood when submitted to the Supreme Government,) relative to the adjudication of claims to estates claimed as Inam in certain districts of the Bombay Presidency, in which claims against Government on account of such estates are not cognisable by the civil courts.

2. You will be pleased to favour Government with an early reply, returning the draft Act therewith.

I have the honour to be, &c.

(Signed) A. MALET,

Chief Secretary to Government.

*Bombay Castle, 9th July 1851.*

No. 3237.

To A. MALET, Esq.,

Chief Secretary to Government, Bombay.

SIR,—In obedience to the orders conveyed in your letter No. 7096, dated 9th current, I have the honour to return to you the printed draft Act which accompanied it, with the following observations.

2. The alterations introduced into the wording of the Act as now printed are for the most part evident improvements; but the following questions strike me as requiring the consideration of Government :—

1st.—In the title, should not the word “the” be inserted before “adjudication,” and the words “wholly or partially” before “rent-free”?

2nd.—In Section IV., should not the Rules in Schedule B, instead of being annexed as a Schedule to the Act, be kept separate, as at first intended by Government, for the reasons recited in paragraph 5 of the Government letter No. 8729, dated 28th November 1850?

3rd.—In that same Section IV., if it should be determined that the Rules must be attached as a Schedule, would it not be well to expunge the Clause commencing “but the Governor” &c.?—for it seems objectionable to *presuppose* that the Rules of an enactment about to be passed may be “unjust,” and the power of relaxing any of the Rules in favour of claimants on whom they might operate *harshly* is already provided for by Rule II. of Schedule B to the Act as now printed, corresponding with Article VI. of the Rules approved by Government on the 16th March 1851. This rule is, in fact, more comprehensive than the one I propose to expunge, which would seem to restrict the interference of Government to cases where the opinion of the Inam Commissioner coincides with theirs; whereas the other provides for that opinion being over-ruled when requisite. The whole of Section IV. which follows the word “Act,” therefore, seems to me unnecessary, as well as liable to positive objection, even if the Rules for the adjudication of titles should be now published as proposed; the propriety of which publication is, in my humble opinion, more than questionable.

4th.—In Section VI., would it not be better to restore the last clause of this Section, as it originally stood in the draft submitted to the Government of India, declaring that punishment under this Section shall

not preclude any other prosecution under the general Regulations to which the misconduct of the offender may have subjected him?—otherwise it may so happen, that if a person sustains a civil injury by such misconduct, he will be precluded from obtaining redress by a civil suit. This may seem a very wild hypothesis on my part; but if the Bombay Sudder Adawlut had grounds, on the 21st March 1839, for interpreting that “damages arising from ‘conspiracy’ cannot by the Regulations form the subject of litigation in a civil court,” merely because “conspiracy,” which first became a *specific* crime by Regulation XVII. of 1828, was not mentioned as such in the 2nd Clause of Section II. of Regulation XIV. of 1827, there will be equal grounds for the same Court to decide that damages arising from the misconduct of an Inam Commission officer cannot form the subject of a civil suit, because his existence was not provided for by any of the clauses of the same Regulation of 1827. Finally, with regard to the clause omitted, it has, I believe, been found to work satisfactorily in Bombay Regulation II. of 1827, Section XXXVI. Clause 3rd, and in Regulation XII. of 1827, Section VIII., where it is inserted in the same terms, as well as in Regulation XVI. of 1827, Section XI. Clause 5th, where its spirit has been upheld, so far as relates to the recovery of presents or bribes by civil suit.

5th.—In Section VII., should not the last clause of this Section be restored, as at first proposed? The same clause, or one to the same effect, was first proposed to Government, but being by Government considered unnecessary, was left out of the draft referred to the Remembrancer for Legal Affairs. That officer, however, was of opinion that it should be in effect restored, and he inserted in his revision of the draft the clause now again left out of the printed draft. I think that it may be required, to prevent the acts of Collectors, &c. done in executing decisions passed under the proposed enactment from being either directly or *indirectly* set aside by civil courts. The provisions of Act XVIII. of 1850 will not, I fear, fulfil what is here required, as they seem to have been intended only for the protection of officers in a judicial capacity, and others executing their warrants, by giving them immunity from personal suit. I think that Government will find this explained in the Legal Remembrancer’s letter, of which I have not a copy.

6th.—In this same Section VII., “such provision” should be “such provisions.”

3. With respect to Schedule B, I shall submit my observations with reference to its Rules as they are there numbered,—

1st.—In Rule III., should not the phrase “of a grandson or male heir of the body of a grandson of the original grantee” be altered to “of a grandson in male descent or male heir of the body of such grandson of the original grantee”?—otherwise, should the grandson in possession at the introduction of the present Government be a *daughter’s son*, the effect of the

Rule will be to transfer the prescriptive title recognised by it from the family of the grantee to that of his daughter's husband, or to prevent Government from resuming an estate which has fairly lapsed in default of male heirs.

2nd.—In Rule V. Provision 1, the phrases by “the Collector” and “Collectorate” are incorrect: what Government meant by “at the Hoozoor” and “in the Hoozoor accounts” was the Hoozoor of the *Government*. If the Native word “Hoozoor” seems objectionable, would it not be well to alter the wording of the sentence of this Provision in which the words occur as follows:—

“The mere entry of the holding as continued in the genuine accounts of the district officers (even in those not audited and passed by the Government of the time being) will be sufficient to bring it under the heads of ‘undisputed’ and ‘authorised,’ *so far as regards the purposes of this Rule*; provided only that there are no entries in the Government accounts which show &c.”

3rd.—In Rule VII. Provision 4, also, the error last noticed recurs. In this Provision, therefore, the words “not passed by the Collector” should, in like manner, be altered to “not passed by the Government of the time being,” and the phrase “the Collectorate accounts” to “the Government accounts.”

4th.—In Rule VIII. Provision 5 “Nargowdass” should be “Nargowdas.”

4. There do not seem to be any other points requiring observations from me.

I have the honour to be, &c.

(Signed) W. HART,

Belgaum, 18th July 1851.

Inam Commissioner.

No. 7771 of 1851.

TERRITORIAL DEPARTMENT, REVENUE.

To W. HART, Esq.,

Inam Commissioner.

SIR,—I have been directed to acknowledge the receipt of your letter No. 3237, dated 18th instant, and to inform you that the Right Honorable the Governor in Council fully concurs in the suggestions therein made, giving the preference to that in question 2nd paragraph 2 over that in question 3rd of same paragraph.

2. His Lordship in Council has also directed me to forward to you here-with another copy of the draft Act as received from Calcutta, and to request you will have the goodness to alter it in red ink so as to give effect to your suggestions as now adopted by Government.

I have the honour to be, &c.

(Signed) A. MALET,

Bombay Castle, 29th July 1851.

Chief Secretary to Government.



No. 9.

To A. MALET, Esq.,

Chief Secretary to Government, Bombay.

SIR,—In obedience to the instructions contained in your letter No. 7771 of 1851, dated 29th ultimo, I have the honour to return the accompanying copy of the draft Act with alterations in red ink, as required.

2. In altering Section IV., I have crossed with *double* lines, and enclosed in brackets, that part of it which should be omitted, even if Schedule B were retained. If, as Government have seen the propriety of doing, the Rules be for the present allowed to remain unpublished, the whole of the words crossed (whether with a double or single line) will be replaced by the words written in the margin with red ink.

3. I have, as directed, proposed the omission of the whole of Schedule B.

4. At the same time, I have inserted in the Rules now contained in it the corrections Government considers them to require, in order that the same may be embodied in the Code promulgated under Section IV. as now altered.

I have the honour to be, &c.

(Signed) W. HART,

Inam Commissioner.

*Belgaum, 5th August 1851.*

No. 8393 OF 1851.

TERRITORIAL DEPARTMENT, REVENUE.

From A. MALET, Esq.,

Chief Secretary to the Government of Bombay,

To F. J. HALLIDAY, Esq.,

Secretary to the Government of India.

SIR,—With reference to Mr. Under-Secretary Young's letter dated the

Letter from Mr. Hart,  
Inam Commissioner, No.  
3237, dated 18th July 1851.

From ditto, No. 9, dated  
5th instant, with accompani-  
ment.

20th June last, No. 386, I have been directed by the Right Honorable the Governor in Council to forward to you, for the information of the Honorable the President in Council, copies of the letters noted in the margin from Mr. Hart, the Inam Commis-

sioner, together with the amended draft Act "for adjudication of titles to certain estates claimed to be rent-free in the Presidency of Bombay," and to request that you will move the Government of India to pass the amended draft into law.

I have the honour to be, &c.

(Signed) A. MALET,

Chief Secretary to Government.

*Bombay Castle, 20th August 1851.*

## ACT No. XI. OF 1852.

*Passed by the Governor General of India in Council on the 13th  
February 1852.*

*An Act for the Adjudication of Titles to certain Estates claimed to be wholly  
or partially Rent-free in the Presidency of Bombay.*

WHEREAS in the territories of the Deccan, Khandeish, and Southern Mah-ratta Country, and in other Districts more recently annexed to the Bombay Presidency, claims against Government on account of Inams and other Estates wholly or partially exempt from payment of Land Revenue are excepted from the cognisance of the ordinary Civil Courts, and incapable of being justly disposed of under the Rules for the determination of Titles, and the Rules of Procedure contained in Chapters IX. and X. of Regulation XVII. of 1827 of the Bombay Code and their Supplements; and whereas it is desirable that the said claim should be tried and determined without further delay; It is declared and enacted as follows :—

I. The Rules in Chapters IX. and X. of Regulation XVII. of 1827, and Clause 1 of Regulation VI. of 1833 of the Bombay Code, do not apply to any of the Districts of the Bombay Presidency which were not brought under the General Regulations of Government by Regulation XXVIII. of 1817 of the Bombay Code; and no order hitherto passed regarding the continuance or resumption of lands in any of the said Districts held or claimed from Government as wholly or partially free of assessment shall be liable to be questioned in any Court of Law, on the grounds of any interpretation or construction of the Law which may be inconsistent with the declaration made and the Rules prescribed by this enactment.

II. The Governor of Bombay in Council may appoint in any Zilla or other division of the territories subject to the Presidency of Bombay, which were not brought under the General Regulations of Government by the said Regulation XXVIII. of 1827, an Inam Commissioner with so many Assistants, and such subordinate establishment as may be necessary for the purposes hereinafter mentioned.

III. The duties of each Inam Commissioner and his Assistants shall be discharged according to the Rules in Schedule A, annexed to this Act.

IV. In the adjudication of claims to exempt lands or interests therein,

the titles of claimants shall be determined by the Rules in Schedule B, annexed to this Act.

V. Each Inam Commissioner and his Assistants shall have the same authority to procure the attendance of witnesses, and to take evidence, as now is, or from time to time may be, by Law vested in the ordinary Civil Courts; and so far as concerns the penalties for not giving evidence, for false testimony, for resistance of process, contempts, and other like matters connected with cases under cognisance by any one of the said Officers, his Office shall be held to be a Court of Civil Jurisdiction of the same authority as the superior Civil Court of the Zilla or District in which his Office from time to time shall be established. Provided that all complaints against, or appeals from, the proceedings of the Inam Commissioner or any of his Assistants, in exercise of the authority conferred on them respectively by this Section, shall be made under the second Rule of Schedule A, annexed to this Act, and shall not be cognisable by any other authority, or in any other manner than as therein specified.

VI. Bribery, extortion, and generally all acts of abuse, or misapplication of authority, or other misconduct, committed by any Officer belonging to the Establishment of the Inam Commission, or temporarily employed therein under the provisions of this enactment, shall be punishable as criminal offences, with fine and ordinary imprisonment without labour for a period not exceeding five years; and the receipt of a present directly or indirectly, by any such Officer, from any person against whom or in whose behalf he may be officially employed, shall be considered extortion. And no penalty or punishment adjudicated under this Clause shall preclude any other Civil prosecution to which the offender may be liable.

VII. No decision or order of the Inam Commissioner, or of any of his Assistants, or of the Governor in Council, under the provisions of this enactment, so long as the same shall be in force under such provisions, shall be questioned or avoided in any Court of Law; and no Commissioner, or Assistant Commissioner, or other person acting under the provisions of this Act, shall be liable to be sued in any Civil Court for any act *bonâ fide* done or ordered to be done by him in pursuance of the said provisions.

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## SCHEDULE A.

### *Rules for defining the Duties of each Inam Commissioner and his Assistants.*

1. The duty of the Inam Commissioner and his Assistants shall be to investigate, in the manner prescribed by this enactment, the titles of persons holding or claiming against Government the possession or enjoyment of Inams or Jagheers, or any interest therein, or claiming exemption from the payment of Land Revenue, and generally to act according to the instructions of Government in all matters not specifically provided for in this enactment.

2. All orders of the Assistant Commissioners shall be appealable to the Inam Commissioner, who shall also have the authority of revising and of modifying, reversing or annulling, if necessary, their orders and proceedings; and the orders and proceedings of the Inam Commissioner shall be in like manner appealable to and subject to modification, reversal, or annulment by the Governor of Bombay in Council, whose orders shall in every case be final.

3. The Inam Commissioner or his Assistants shall receive, from the persons holding or claiming to hold lands or any interest therein exempt from the payment of Revenue, statements explaining the nature of the title by which the lands and interest are so held, and shall take and record the evidence offered in support of such statements.

4. These statements may be received, either directly by the Officers of the Inam Commission, or through the medium of the Revenue Authority of the Talooka in which the land or interest so held or claimed as exempt is situated, or in which the alleged proprietor resides, without any previous procedure, except a general invitation to such landholders of a District who shall hold or claim to hold lands exempt as aforesaid to state the nature of their titles.

5. But when such general invitation is not sufficiently attended to, a notice may be issued to any party holding or claiming to hold any lands or any interest therein wholly or partially exempt as aforesaid, requiring him personally, or by his Agent, to show his title. The notice issued in such cases shall state the nature of the investigation which is intended, and shall call upon the alleged proprietor of the exempt lands, or interest held or claimed to be held exempt as aforesaid, to attend either personally or by an authorised Agent, at a specified place and within a specified period, (which shall never be less than two months from the date of the notice being served,) to explain the nature of his title to hold such lands or interest exempt as aforesaid, and to produce all the evidence forthcoming to prove it. The notice shall further explain that a failure to comply with its terms will render the land or interest to which it relates liable to attachment.

6. The notice shall be served upon the party holding or claiming to hold the land or interest exempt as aforesaid, or, if his place of residence be not known, upon the person acting for him, or, in default of such, upon the person in charge of the land or interest.

7. If such persons cannot be found, a notice shall be posted in the Office of the Native Revenue Officer of the District, and in the Chowree, or most public place of the village, where the land or interest under inquiry is situated, calling on any person who may claim as proprietor to appear, either personally or by his Agent, to prove his title within six months from the date of the notice, under penalty of the attachment of the land or interest, and on failure of the appearance of a claimant the land or interest shall be liable to attachment.

8. The attachment provided for by Rules 5 and 7 shall be enforced by the Collector or Chief Revenue Authority of the District in which the land to

which it relates is situated, at the written requisition of the Inam Commissioner or his Assistant, which shall be a sufficient warrant to the Collector for the attachment of the land, and for the collection of the rents accruing therefrom on account of Government during its attachment.

9. As soon as possible after the receipt of the statements in each District, and of the evidence by which they are supported, they shall be tested by the entries in the Government Accounts and State Records, and by any other evidence procurable, whether in favour of Government or of the claimants, and decisions shall then be passed on them as to the continuance, resumption, or full or partial assessment of the lands.

10. In cases where the notices provided for in Sections V. and VII. fail to procure the attendance of the persons to whom they are addressed, and no claimant appears to prosecute his claim, the Commissioner or Assistant Commissioner shall proceed to ascertain the facts of the case from such evidence as may be forthcoming or procurable, and shall pronounce such decision thereupon as to him shall seem just regarding the lands or interests to which the notices referred.

11. An attachment enforced under Rule 8 shall be removed by the Collector or Chief Revenue Authority by whom it was made, on receipt of a communication from the Inam Commissioner or his Assistant, certifying that he considers the attachment to be no longer necessary; but the rents collected from the land during its attachment shall in no case be restored to the alleged proprietor, except under the general or special instructions of Government.

12. Certified copies of decisions made according to the provisions of Rule 9 shall be delivered as soon as possible after each decision is passed, to the persons on whose claims the decision shall have been pronounced, or their agents; and copies of all decisions made in the absence of any claimant, according to the provisions of Rule 10, shall be sent to the Mamlutdar, or other Revenue manager of the Talooka in which the lands to which they relate are situated, who shall deliver them to the parties affected by them, should they be discoverable, or otherwise cause them to be publicly posted in the village to which the lands in question belong.

13. Decisions affecting any lands, or any interests therein, passed under this enactment, shall be carried into execution by the Collector or Chief Revenue Authority of the District in which the lands to which they relate are situated, at the requisition of the Inam Commissioner or his Assistant, in any manner which may, from time to time, be prescribed by the Governor of Bombay in Council.

14. In all cases where a person may be desirous of appealing against any decision of the Inam Commissioner or his Assistants, he shall apply by a petition, addressed to the Authority by whom, according to Rule 2, his appeal is cognisable, which petition shall be presented to such authority within one hundred days from the date of the decree appealed against, a copy of which must accompany the petition of appeal; and no appeal which is not so made

shall be admitted without proof of the existence of a just and necessary cause for its not having been preferred in due time ; and it is hereby provided, that no decree passed by the Inam Commissioner or any of his Assistants shall be liable to be set aside for want of form in the proceedings, but only for matters affecting the justice of the decision.

## SCHEDULE B.

### *Rules for the adjudication of Titles to Estates claimed as Inam, or exempt from payment of Land Revenue.*

1. All lands held under specific and absolute declaration by the British Government, or any competent Officer acting under it, that they were to be continued hereditarily or in perpetuity exempt, wholly or partially, from the payment of Revenue, are to be so continued according to the purport of such declaration.

Regarding Inams already declared permanent by competent authority since the introduction of the present Government.

*Provision 1st.*—If any question shall arise as to the competency of the Officer to make or give such declaration as aforesaid, the Commissioner or Assistant Commissioner is to suspend his judgment, and report the circumstances of the case to the Governor of Bombay in Council, to whom a power is hereby reserved of determining finally whether such Officer was competent to make or give such declaration, and the Commissioner or Assistant Commissioner, upon receiving the determination of the said Governor in Council, shall decide accordingly.

2. Any land held under a Sunud declaring it to be hereditary shall be so continued according to the terms of the Sunud.

Regarding claims to personal Inams not yet adjudicated under the present Government.

*Provision 1st.*—Provided that the grant was either made, or specifically recognised, by authority competent to alienate Government Revenue in perpetuity, the question of which recognition and competency is to be referred to and determined by Government in the manner prescribed by Provision 1st, Rule 1.

*Provision 2nd.*—And provided that there be nothing in the conditions of the tenure which cannot be observed without a breach of the laws of the land, or the rules of public decency.

*Provision 3rd.*—And provided that the grant was not afterwards revoked or disallowed, or an alteration of its terms ordered or recognised by a competent authority.

3. All lands uninterruptedly held as wholly or partially exempt from assessment for a period of sixty years before the introduction of the British Government, and then in the authorised possession of a grandson in male descent, or male heir of the body of such grandson of the original grantee, shall continue to be so held so long as there shall be in existence any male heir of the body

of the person who was incumbent at the introduction of the British Government, tracing his lineage from such incumbent through male heirs only.

4. All lands, uninterruptedly held as wholly or partially exempt from assessment for a period of forty years before the introduction of the British Government, and then in the authorised possession of a son, or male heir of the body of a son of the original grantee, are to be continued for one succession further than that of the person who was incumbent at the introduction of the British Government, that is, until the death of his last surviving son.

*Provision 1st.*—The authorised possession contemplated by Rules 3 and 4 does not involve the necessity of proving any specific authority from, or recognition by, the Government or Paramount Power. The mere entry of the holding as continued in the genuine accounts of the District Officers (even in those not audited and passed by the Government of the time being) will be sufficient to bring it under the heads of “uninterrupted” and “authorised,” so far as regards the purposes of this Rule; provided only that there are no entries in the Collectorate accounts, which show that the holding of such lands exempt as aforesaid must have been unauthorised by the Government or Paramount Power.

*Provision 2nd.*—If there be not evidence forthcoming to disprove a claimant's assertion that his holding has been undisputedly enjoyed for the number of years and descents requisite to fulfil the conditions of Rules 3 and 4 respectively, his prescriptive right shall be admitted.

*Provision 3rd.*—The introduction of the British Government is to be reckoned from the time the East India Company became the Government or Paramount Authority over each District as regards its Inams. In the Territories ceded by or conquered from the Peshwa, therefore, whether Khalsat Mahals or Surinjams, &c. held exclusive of Inams, &c., the introduction of the British Government will date from the close of that of the Peshwa. But in case of the lapse of an independent principality, or of a Jagheer more ancient than the Peshwa's Government, and over the Inams of which he did not claim any authority, the introduction of the British Government should be reckoned only from the date at which the general management of the Districts may have come into the hands of the Company; and in case any question shall arise as to the precise date when the East India Company became the Government over any district, or when the general management of any District came into their hands, such question shall be referred to and determined by Government in the manner prescribed by Provision 1st, Rule 1.

6. Land held as wholly exempt from payment of Revenue, or on partial assessment, the possession of which is not continuable under the preceding Rules, is to be resumed on the demise of the incumbent.

*Provision 1st.*—In case the incumbent at the time of the introduction of the British Government may have died, the permission to hold for life is to be extended to the person in whose name the land may be continued when the investigation is commenced, if there be no fraud apparent, nor other reason for withholding this indulgence.

*Provision 2nd.*—When land is evidently held by fraud recently committed (as when an Inam which was resumed under the late Government has been re-occupied under the present Government without authority, or as when a pretended Inam is found to have originated since the introduction of this Government with the connivance of District or Village Officers) it shall be at once resumed, not being continuable under this or any of the preceding Rules.

7. All lands held for the support of Mosques, Temples, or similar Institutions, of the permanent character of which there can be no doubt, are to be continued permanently even though their permanent continuance may not have been expressly provided for when they were granted.

Regarding claims to Inams apparently permanent by the nature of the objects for which they are held, and not merely personal.

*Provisions 1st, 2nd, and 3rd.*—The same as the corresponding Provisions of Rule 2 of this Schedule in those cases in which Title-Deeds, or other Records proving the circumstances of the original grant, or its specific recognition by competent authority, are forthcoming.

*Provision 4th.*—When there is no proof forthcoming to show whether or not an Inam coming under the Provisions of this Rule was granted, or even specifically recognised by a competent authority, still, if it has been undisputedly enjoyed for a period of forty years before the introduction of the present Government, it shall be permanently continued, and enjoyment proved by the mere entry of the Inam, as continued in genuine accounts of the District Officers, (even in those not passed by the Government of the time being,) is to be considered sufficiently “uninterrupted” to give an Inam the benefit of this provision, if there be no entries in the Government accounts which show that it must have been unauthorised by them.

*Provision 5th.*—If the forthcoming records do not go far enough back to test the existence of enjoyment of the duration contemplated in Provision 4th as establishing full prescriptive title in such Inams, still, if so far as they do go they are not opposed to the claimant’s assertion that sufficient enjoyment has taken place, the prescriptive title of the Inam shall be admitted according to his assertions, unless there be other evidence forthcoming to disprove them.

*Provision 6th.*—The peculiar advantages of this Rule shall not apply to the holdings of individuals in their own names for the performance of ceremonial worship, claims to which must be decided under the Rules for personal claims.

*Provision 7th.*—When claims of the denomination coming under this Rule are found to be unsupported by proof of original valid title, and are proved void of sufficient prescriptive enjoyment, they are to be adjudicated according to Rule 6.

8. All lands authorisably held by an official tenure, which it is evident from local usage was meant to be hereditary, and has been so considered heretofore, even though there be no Sunuds declaring it to be so—for instance, Inams which form the authorised emoluments of any hereditary office, as of Kazees, Village Joshees, &c., and are not merely personal,—are to be continued permanently.



*Provisions 1st, 2nd, and 3rd.*—The same as the corresponding Provisions of Rule 2 of this Schedule, in those cases in which Title-Deeds or other Records, proving the circumstances of the original grant, or its specific recognition by competent authority, are forthcoming.

*Provision 4th.*—When there is no proof forthcoming to show whether or not an Inam, coming under the Provisions of this Rule, was granted, or even specifically recognised by competent authority, still if it has been undisputedly enjoyed as an official and not merely personal holding from the earliest period to which the forthcoming evidence does relate, it shall be continued permanently as official emolument, unless the claimant's own statement renders this course improper.

*Provision 5th.*—The provisions of this Rule are not in any way to apply to emoluments continued for service performed to the State, as the Service Wuntuns of Desaees, Surdesaees, Nargowdas, Deshpandeyes, Patells, Koolkurnees, Mhars, Tulwars, whose claims are to be disposed of according to the Rules which are or may be established for the regulation of such holdings.

*Provision 6th.*—It is to be understood that mere length of enjoyment of land as Inam by an official person is not of itself sufficient to entitle a claim to be brought under this Rule.

*Provision 7th.*—If a holding, claimed under this Rule, be found incapable of permanent continuance under it, the claimant shall be allowed the advantages of any of the preceding Rules of this Schedule which may be applicable to his case.

9. On the resumption of any lands under the Rules of this Schedule,

Regarding Provision for the Widows of the last Incumbents of resumed Holdings. a moiety or other portion may be continued to the widows of the last incumbents during their lives, in cases of proved poverty and destitution.

*Provision 1st.*—In the case of a holding which is recognisable as an hereditary personal Inam, the widow of a proprietor who dies without surviving male issue, or other heirs to whom his Inam will of necessity descend, is by right his sole heir, and during her life the Inam cannot be regarded as having lapsed to Government: it should, therefore, in such a case, be continued undiminished during the widow's life.

10. These Rules shall not be necessarily applicable to Jagheers, Surinjams,

Regarding the exception of certain Tenures from the application of these Rules. or other tenures for service to Government, or tenures of a political nature, the titles and continuance of which shall be determined as heretofore, under such Rules as Government may find it necessary to issue from time to time.

11. Any of these Rules may be relaxed in favour of claimants under instructions from the Governor of Bombay in Council, in

Regarding the modification and interpretation of these Rules. whom shall also be vested the power of interpreting the precise meaning of any of the Rules respecting which a question may arise.

• SELECTIONS FROM THE RECORDS OF THE BOMBAY  
GOVERNMENT.

NO. XXXII.—NEW SERIES.

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# CORRESPONDENCE

RELATING TO THE

## CANAL CLEARANCES IN THE HYDRABAD COLLECTORATE

IN

1854-55.



**B o m b a y :**

PRINTED FOR GOVERNMENT

AT THE

BOMBAY EDUCATION SOCIETY'S PRESS.

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1856.

## NOTICE.

The correspondence printed in this Compilation being somewhat misplaced, the attention of the reader is directed to the Table of Contents, in which the several letters, &c. are enumerated in their proper order.

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*The larger Map belonging to this Selection is issued in a separate Case.*

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# CANALS IN THE HYDRABAD COLLECTORATE.

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No. 51c OF 1856.

REVENUE DEPARTMENT.

FROM H. B. E. FRERE, Esq.,  
Commissioner in Sind,

TO THE RIGHT HONORABLE LORD ELPHINSTONE, G.C.H.,  
Governor and President in Council, Bombay.

*Dated 22nd January 1856.*

MY LORD,

I have the honour to submit, for the information of your Lordship in Council, the annexed copies of correspondence on the subject of Canals in the Hyderabad Collectorate.

No. 1873, of 8th November 1855, from the Collector of Hyderabad to the Commissioner, with enclosures; and letter No. 25, of 4th January 1856, from the Superintending Engineer to the Commissioner.

2. This is the first Annual Report on the Canals received from the Assistant Collector under the new system of management, and is, I think, not only useful and interesting in itself, but very creditable to Mr. Beatty.

3. I can fully confirm what is stated by the Collector of Hyderabad, and the Superintending Engineer, as to the value of that Officer's services, and to the improvement in the clearance of the Canals and of the Canal system generally.

I have the honour to be,

My Lord,

Your Lordship's most obedient, humble Servant,

H. B. E. FRERE,

Commissioner in Sind.

*Commissioner's Office, Kurrachee, 22nd January 1856.*

(Copies.)

No. 1873 of 1855.

REVENUE DEPARTMENT.

FROM THE COLLECTOR OF HYDRABAD,

TO THE COMMISSIONER IN SIND, Kurrachee.

*Dated 8th November 1855.*

SIR,

I have much pleasure in submitting the Annual Report of the Canal Clearances of 1854-55, prepared by Mr. J. Beatty, the Assistant Collector for Canals. This Report is so comprehensive and clear, that it requires but little comment from me.

2. I can bear testimony to the improvement that has taken place, during the year, under the active and energetic superintendence of Mr. Beatty and the Canal Surveyors; and I am quite confident that if a sufficiency of European agency be furnished to Mr. Beatty to work with, the Canals of this Collectorate will, in a few years, be brought into a very creditable state; the actual mileage much reduced; the supply of water made more abundant and certain; and the actual cubical quantity of excavation yearly required greatly lessened; and thus at the same time the revenue will be increased, and the cost of annual clearance decreased.

3. The Map which accompanies Mr. Beatty's Report, and the Statement which is annexed to it, are two most valuable additions to the stock of information which has, during the past year, been collected regarding the Canals of this Collectorate; and I think very great credit is due to Mr. Beatty for having accomplished so much, especially considering that he had only just arrived in India when he took charge of his office, and was totally unacquainted with the language, customs, and habits of the people of Sind.

4. Mr. Pegler was the 1st Canal Surveyor, and I regret failing health obliged him to leave Hydrabad, where he had rendered very useful services. Mr. Barry was the 2nd Canal Surveyor, and had charge of the most extensive and difficult Canal District, and has proved himself by his industry, zeal, and intelligence a deserving officer; and Mr. Wilson, the 3rd Canal Surveyor, had charge of the Halla Districts, and was most indefatigable, and did a deal of good service.

5. In acknowledging these services, I cannot but bring prominently to your notice the inadequate number of the Surveyors and the necessity for increasing them. There were 368 Canals cleared last season; some of these upwards of forty miles long, and intersecting a very great extent of country, and the working season is, as you know, very short.

6. I sincerely trust that the Consulting Engineer will advise you as to the importance of increasing the number of Canal Surveyors. The improved

supervision they will afford, will, I feel confident, more than cover their salaries; and, in justice to the present Surveyors, I beg respectfully to state that I think they have more work on hand than they can efficiently supervise.

7. In conclusion, I have to mention that the cordial co-operation which has existed between the Deputy Collectors and the new Canal Department, has much tended to bring about these favourable results; and I can assure you that my Deputies, one and all, exerted themselves most laudably to have the Canals properly cleared last season.

I have the honour, &c.

(Signed) A. F. BELLASIS,

Collector.

*Collector's Office, Hyderabad, 8th November 1855.*

(True copy)

LEWIS PELLY,  
Acting Assistant Commissioner.

---

No. 3939 of 1855.

REVENUE DEPARTMENT.

Forwarded for perusal to Lieutenant Colonel Turner, Superintending Engineer in Sind, with a request that he will return these papers, with any remarks that may occur to him, particularly with regard to the paucity of European Officers in the Canal Department, alluded to in the 6th paragraph of the Collector's letter.

(Signed) H. B. E. FRERE,  
Commissioner in Sind.

*18th December 1855.*

(True copy)

LEWIS PELLY,  
Acting Assistant Commissioner.

---

No. 278 of 1855.

FROM THE ASSISTANT COLLECTOR FOR CANALS,  
TO THE COLLECTOR OF HYDRABAD.

*Dated 1st August 1855.*

SIR,

In submitting to you a Report on the work which has been accomplished in this Collectorate during the past season under the new Canal



Department, it would be superfluous in me to make a recapitulatory statement of the different systems which have been adopted in this territory, since its conquest, with a view to ensure a proper annual clearance in the Canals, and prevent speculation among the Native officials entrusted with the expenditure of the money.

2. How each has answered the end for which it was designed, the present ruinous state into which many, if not most of the Canals have fallen, too clearly explains.

3. It appears a matter of difficulty to fix the date from which the deterioration first commenced, but that the Canals were much improved during the existence of the late Canal Department, under the able superintendence of Colonel Scott, I can have no doubt. However, that those improvements have been entirely obliterated, in the system which followed the abrupt abolition of that Department, I think the following quotations from letters from the Superintending Engineer in Sind most clearly tend to prove:—

Report to the Commissioner, No. 574, dated 31st March 1852, paras. 20 to 23.

Letter to ditto, No. 603, dated 17th March 1853, paras. 5 to 7.

Report to ditto, No. 1020, dated 29th April 1853, paras. 3 and 4.

4. The loss, for all practical purposes, of all information collected by the late Canal Department, has been much felt by me, and has rendered the satisfactory fulfilment of my duties a matter of considerable difficulty, arriving as I did just at the commencement of the working season, not only new to the District, but a total stranger to India altogether, unacquainted with the language of the country, and inexperienced with the habits of the people.

5. I shall, however, take this opportunity of expressing my acknowledgments for the kind assistance I have at all times experienced from yourself, and for the cordial co-operation which has been given by each of the Deputy Collectors, and which has, I consider, in a great measure tended to the completion of the extensive clearance which the Canals have received during the past season.

6. Previous to entering into an account of the improvements which have been effected, it would have been necessary for me to have given a detailed description of the defects of the present Canals, had they not been already so clearly and ably described in the Reports of Colonels Scott and Turner. I shall therefore merely sum them up, as consisting in “vertical sides and high spoil banks close to the edge, doubling (in Colonel Scott’s opinion) the necessary amount of excavation; their shallowness; their unnecessary number; and their generally tortuous course—all causes capable of removal, with a certainty in the end of reducing the annual expense.” To these defects in the Canals themselves, might be added those in the system by which the Government was defrauded to an immense extent through the speculation of the Native officials and roguery of the workmen.

7. As a simultaneous reformation in all these defects would have been a matter of impossibility, Colonel Turner directed, at the commencement of the

working season, that chief attention should be paid to giving the beds of Canals a proper and uniform gradient; to lightening and sloping the sides as much as possible, which being increased year by year, the banks on each Canal might eventually receive the slope at which they would permanently stand; to the complete removal of every particle of fresh excavation to the rear of the old spoil banks; and finally, to guard as much as possible against all fraud.

8. With reference to the first, I regret to say that little has been accomplished in giving the Canals a proper slope of bed, arising from want of instruments.

Giving Canal beds proper gradients.

9. At the latter end of last year, and previous to the commencement of the working season, Colonel Turner, well knowing the importance of this improvement, at considerable inconvenience purchased two superior Levels in Bombay, but which, being unfortunately handed over to the Commissariat Department for transmission to Hyderabad, did not reach their destination till the early part of June, when the working season had expired.

10. Until sections are made of the Canals, and their beds excavated to a proper depth, I feel convinced no important improvement in the supply of water will be obtained.

11. I made sections of a few of the Canals with a Level belonging to myself, and in every instance found the slope of bed inclined the wrong way. In some Canals through the entire length from mouth to tail, and in others for some miles from their mouths, which thoroughly convinced me of the truth of Colonel Scott's remarks, in referring to the guess work system, when he says—"that such a system is necessarily a most expensive one, as there is a certain line to which a Canal should be sunk to produce a full effect; nothing below that is of any use, and anything left above it at once affects the Revenue."

12. As regards the second improvement, considerable advancement was made, especially in the Halla and Mahomed Khan's sides of Canals. Tanda Districts. But as the sides of most of the Canals are of such an enormous height, from the immense masses of spoil which year after year have been heaped up close to the edge of the excavation, it will, I fear, be some years before they receive that slope at which the soil of each will stand without any risk of slipping.

13. The strictest attention was paid to the third improvement, so much so, that I do not believe there is a single instance in which the soil has not been carried well to the rear of the present spoil banks, or on an average to a distance of ten lineal guz from the edge of the excavation.

Placing new spoil to the rear of old.

14. The Canals have also in most instances been given a uniform breadth at bottom, and their sides have been well cleared of large timber and brushwood, which were both constant sources of the greatest possible injury. I feel confident that the advantages from the relief which has been afforded in this respect will be sensibly

Removing trees and jungles from banks of Canals.

felt this season. It was, as you are aware, a matter of continual occurrence for a large tree, growing on the bank of a Canal, and becoming undermined, finally to fall into the Canal, either right across it, when it almost entirely prevented the further progress of the water, or longitudinally with the direction of the stream, when, if not removed, it formed an enormous *Tooda*, in all probability to the permanent injury of either one or both sides of the Canal when the occurrence took place. The jungle wood on many of the Canals appeared to have been the growth of years. I might instance the Bijawah, in the Shadadpoor Talooka, where it was so strongly matted *across* the Canal, that in many places it was impossible on a small tattoo to ride along its bed, and in some places even to walk.

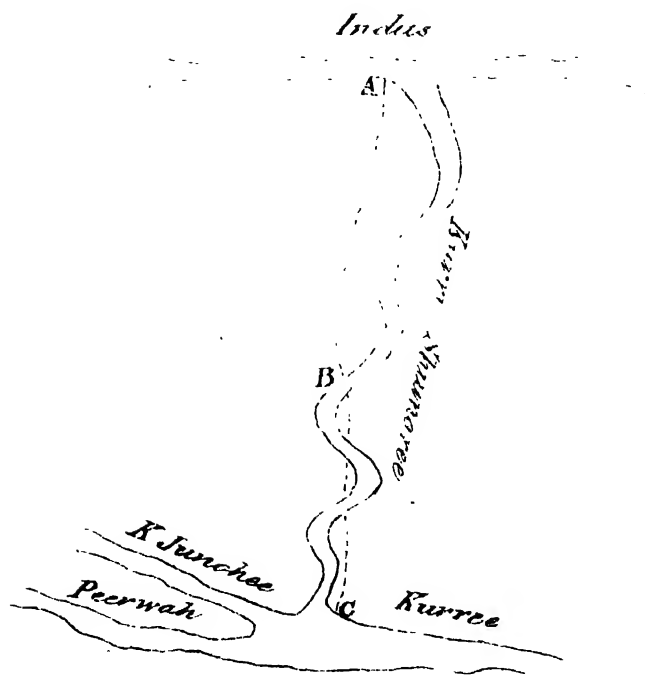
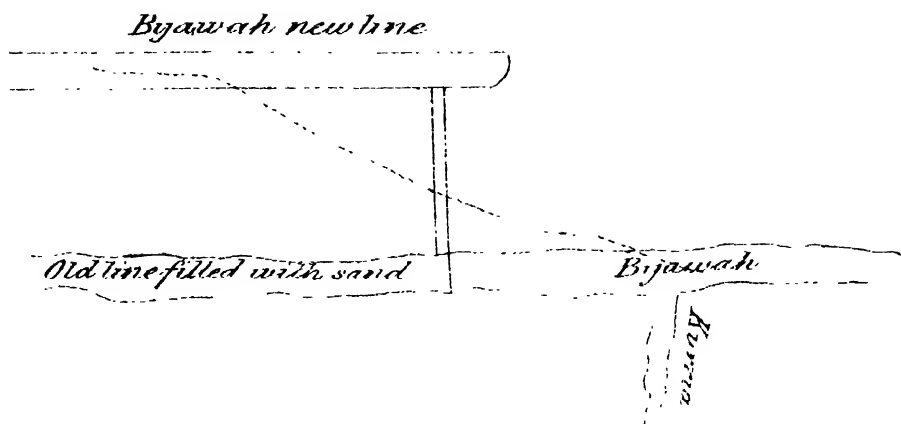
15. With regard to the tortuous character of most of the Canals, several reasons have been assigned for it; among the most forcible, I may quote—"the neglect of the late Meers, and more especially of our own Government, in not removing obstructions in the beds of the Canals, and in allowing the banks to be injured; the jealousy of landed proprietors, in not allowing a new line of Canal to pass through their land, but obliging it to be carried along the boundaries; from having been carried through the lowest ground which could be picked out"; and some having been purposely made tortuous to decrease the slope of the bed.

16. The first of these reasons is a most true one, and one which cannot but reflect discredit on the Government, whether it was that of the Meers or our own, which permitted such neglect. A very palpable exemplification of this cause is to be seen in the Foolailee, a little below Hoosree, where the course of the stream, from having been originally quite straight, has assumed a bend of the worst form. The cross section was diminished to at least a third of the average width of the channel immediately above and below it, and the evil considerably aggravated by the erection of wheels on the right bank.

17. Although the tortuous nature of the Canals cannot be wholly rectified in consequence of the outlay it would involve, yet I believe they can by degrees be much improved, thus:—in bringing the Canals to a uniform breadth, and, year by year, whilst increasing the slopes of the sides, and especially in those Canals which it may require to widen, many of the windings can be entirely or partly cut out.

18. Where the bends are very bad, they might sometimes be got rid of by making a new cut; but considerable care is necessary in attempting this, and as each case depends entirely on its own particular merits, it must not be supposed that every bad and abrupt bend can thus be rejected.

19. Some improvements were effected in this point during the past year, first in the Halla District. The new line of the Bijawah was connected with the original one by a new line of cutting, in the direction on the dotted line on Sketch. (*See Plate, Fig. 1.*) After it became necessary to abandon a considerable portion of the original Bijawah in consequence of the proximity of sand-hills, which had completely filled its bed, a new line was made, which





was connected with the old one by a small Kurria, called the Wunga Bija, but which was so small as to be quite inefficient.

20. You are aware the advantage of this improvement was so much appreciated, that several applicants came forward to obtain the land on the banks of the Kurria, which branches off at the lower junction. The additional revenue which will be thus derived, will, I believe, fully pay for the expenditure on the cutting, which was about Rs. 224.

21. In the Doaba Districts a new cut was commenced (previous to my taking up my appointment) at the Gulloo, with a view to supersede its most Northern mouth, called the Kurria Shumaree, which was most tortuous and winding. (*See Plate, Fig. 2.*) The new line, which was completed this season as far as the point B, is intended next year to be continued on to the Indus.

22. In the Mahomed Khan's Tanda District a new mouth was cut, by the Deputy Collector, to Khanwah from the Khorewah, its former rise having been from the Gaja. This I had not an opportunity of seeing, but I believe it is a great improvement, having shortened the length of the Canal by two miles.

23. Likewise very bad and abrupt bends, which it was quite hopeless to try and improve, were, by the substitution of new cuts, rejected from the Manukwah and Goonee; in the former at about four miles from its mouth, and in the latter at about one mile below Wunhai.

24. At the mouth of the Manukwah an enormous *Passe* was removed from the bed of the Goonee.

25. This, which appears to be an accumulation of years, had not only considerably contracted the cross section of the stream, but was materially injuring the opposite bank. It was also another striking instance of bends being produced in Canals through neglect.

26. These I believe are all the alterations of any note which were made in the Canals during the past season.

27. With reference to their unnecessary number, I may state that this occurs more in the Mahomed Khan's Tanda District than in any other part of the Collectorate. In this Division considerable sums of money are annually expended in clearing Canals which run parallel together for miles, with a space between which barely suffices to hold the spoil.

28. I was very anxious, during the last cold season, to have made an examination of one or two of these Canals, with a view of being able now to offer an opinion on the propriety of abandoning one or the other. But the smallness of my establishment, and the great amount of work each had to do, prevented my getting the plans, sections, and estimates prepared, which are absolutely required before any safe conclusion be come to. These I propose to get made at the commencement of next season, taking in hand first those Canals from which the greatest return is likely to accrue.

29. There are also many Canals, the annual clearances of which might, I think, with advantage be transferred from the Government to the cultivators.

30. But as it would take a considerable time before I could furnish you with an exact list of those Canals, which it might appear to me it would be for the advantage of Government either to retain or otherwise, I would beg to suggest that when from time to time I may be able to prove to you the inexpediency of Government clearing any Canal, it be struck off the list, without reference to the present rules, which includes all above one guz in breadth.

31. The number of Canals which have been cleared during the past season amounts to 368. To give a separate description of each would not only be irksome to you to read but unnecessary, as the annexed Table contains almost all essential information it is desirable to know.

32. I shall therefore confine myself to a few remarks on some of the more important Canals in each district.

33. In the Halla Districts the principal Canals are, first, the Buna Manuk, which, under the different names of the Wandera, Ganj Bhur, Lohanna, and Shahwah, extends for a distance of about forty-five miles, from which point a number of Canals branch off, viz. the Hoozoorwah, Shadadwah, Khyrewah, and Bijawah, some of which, as the Khyrewah, discharge their waters into the Eastern Narra. At the point abovementioned a regular net-work of Canals exists; new cuts, as I understand, having been continually made, under the Talpoor Government, when the former ones did not act.

34. The arrangements at the mouth of the Great Manuk, and Alibhur, which is close beside it, was during the last inundation completely altered.

35. The former arrangement I understand was this—

36. The Great Manuk and Alibhur had their rise from the Nookur Dhund, which was fed from the Indus by a Canal called the Rajah, but during the last inundation the river having encroached about two miles inland, has entirely obliterated the Rajah, and a great part of the Nookur Dhund. The two Canals have now their rise direct from the river, or rather the main branch of it, as shown in the accompanying Map. \*

37. The Great Manuk is the principal Canal in that part of the Collectorate, being to it what the Foolailee and Goonee are to the Southern Districts.

38. By referring to the accompanying Table, you will perceive that a considerable clearance was made along its entire length under the different names which I have already enumerated.

39. I may here remark that the Ganj Bhur, which is that portion between the Wandera and Lesser Lohanna, and which was, as I understand, cut a very short time before the Conquest with a view to do away with the Great Lohanna, is in a very defective state, from the sides which are very high being almost perpendicular.

40. And as the soil which was excavated from its bed when it was originally formed was thrown close to the edges of its banks, immense masses

of it annually tumble down into the bed of the Canal. The expenditure of a considerable sum will be necessary before it can be brought into proper form.

41. The next Canal in importance in the district is the Alibhur, which, as I have stated, has its rise now direct from the Indus. The course of this Canal is very crooked in many places, especially below the village of Limba-ka-Koomb. There are also, at a distance of six miles below this village, on its right bank, a range of moving sand-hills, some of which have drifted up to its very edge. The progress of these sand-hills (the main body of which are at present some four or five miles from the edge of the Canal) may, I think, be much checked by the plantation of belts of trees at fixed intervals.

42. Although this plan was proposed by Mr. Richardson, the Deputy Collector, last season, it was not carried into effect, in consequence of there being no one available to attend to it, the Canal Surveyor having too much other work on hand.

43. From the junction of the Yarronwah the channel of the Alibhur has been obliterated by drift sand for a distance of three miles.

44. The tail is supplied by a small branch from the Yarronwah, which is quite insufficient. As the soil at the tail is of a very fertile nature, particular attention will require to be paid to this next season.

45. The other Canals of importance in this District are the Jamwah, Shahwah, Rheinwah, Chakurwah, and Moobarruckwah.

46. In the Hyderabad District the principal Canals are the Surfrazwah and Foolailee, both of which have their origin at the Indus; the former, rising near Muttaree, flows for a distance of about forty miles: it is one of the best formed Canals in the Collectorate. A strong exemplification of one of the great difficulties which exist with reference to the Canals in Sind, in the drifting sands which are blown in and sometimes obliterate the Canal, is found on this Canal at Ahree near Kokur. The tract of moving sand is eight miles long, and much more in the direction of its own course, which is unfortunately nearly at right angles to the course of the Canal. The attention of Colonel Scott was called to this, with a view of getting rid of the obstruction by means of a new channel, but the impracticability of such a measure is clearly explained in his own words, when he writes—"a change in the Canal has been much urged upon me, but as the change would cost from thirty to forty thousand Rupees, and, when completed, would place the Canal under rather more difficult circumstances than at present, I have no intention of recommending it."

47. The Foolailee, on which almost the entire of the Southern Districts depend for their water, has been already fully reported on by Mr. Wells, and a plan submitted by him to Government for its improvement. I apprehend it will be necessary to excavate a new mouth to this river next year, in consequence of the main stream of the Indus having set completely from its present one to its opposite bank.



48. In the Mahomed Khan's Tanda Districts the principal Canal is the Goonee, which, flowing from the Foolailee, is the main supply channel for the entire of that part of the country. The present condition of this Canal is, as you are aware, in a very defective state, arising from the natural tendency which such streams have to silt up, and the almost total neglect to which it has been subjected through a series of years.

49. These defects have been already forcibly brought to your notice by Mr. Wells, in his Report dated 19th February 1855.

50. During the past season the last six or seven miles were well cleared and a free discharge given to its waters through the Lohanna and Kuddun Ghars. The bed of the last named Canal received an inclination of one foot per mile from mouth to tail, as well as by the Aliwah, Sherewah, and Sonee Gonee.

51. The sides were well sloped throughout the same distance wherever they were overhanging or steep, and the banks cleared of immense quantities of large timber and jungle wood, which last improvement was carried out along its entire length wherever it was necessary to do so.

52. Before next season I trust that the strictest orders will be issued against the erection of wheel bunds, and undermining of the banks for water channels, as I feel convinced that, until all such sources of injury are rigidly suppressed, not only in this but every other main feeder, all attempts at improvement will be signal failures.

53. The other principal Canals in the Southern District are the Nusseerwah, Manukwah, Shadeewah, Gharree, and Kazia, &c. &c., all of which require much improvement.

54. With reference to the embankments, it is satisfactory to state that the expenditure on them this season has been comparatively light. The one which required chief attention was the Jullalane, a great portion of which was made new, as in those places the repairing of the old would have been attended with greater expense and less certainty of success. The accompanying Plan shows the alterations which were made.

55. Some of the other bunds received repairs, but nothing beyond what might be annually expected.

56. In annexing a Table which shows the quantities of excavation, the distance for which each Canal has been cleared as compared with its entire length, and the entire expenditure as compared with that of the last two seasons, I feel confident that a careful examination of it will in itself be a sufficient proof of the zeal which has actuated each member of the new Canal Department in the performance of his respective duties : and when it is borne in mind that every measurement and result can be satisfactorily accounted for ; that although the Canals have during the past season been given a more extensive clearance than they have received for years, the expenditure has been considerably reduced ; that roguery amongst the workmen has been much checked, and peculation by the Native officials nearly abolished ;

it will, I trust, be felt that the advantages which have resulted from the new Canal Department during the first year of its existence, are such as not to disappoint the expectations of its promoters.

57. Considerable credit is due to the Canal Surveyors, who each in his respective District worked with much zeal and energy; and it is no small credit to them to state, that owing to the correct manner in which their books were kept, the Canal accounts of the entire Collectorate were completed before the middle of August.

58. I have not made any remarks with reference to the Nowshera District, in consequence of the works in that part of the Collectorate having been carried on under the old system.

59. In conclusion I beg to state, that with reference to the erection of permanent Bridges, if at your earliest convenience you will be good enough to furnish me with a list of those bye-roads on which, at the crossing of the Canals, you would wish pukka masonry Bridges to be built, I will make arrangements during the inundation regarding the materials, in order that no delay with their commencement may take place after the subsidence of the water.

I have the honour, &c.

(Signed) J. BEATTY,

Assistant Collector for Canals.

*Hydrabad, 1st August 1855.*

(True copy)

(Signed) A. F. BELLASIS,

Collector.

(True copy)

(Signed) LEWIS PELLY,

Acting Assistant Commissioner.

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No. 25 of 1856.

PUBLIC WORKS DEPARTMENT.

TO THE COMMISSIONER IN SIND.

SIR,

In returning the documents received with your Memorandum No. 3939, of the 18th instant, I have the honour to offer the following remarks.

2. Mr. Beatty's report is in my opinion generally a very fair statement of last year's Canal proceedings in the Hydrabad Collectorate; but having had longer experience than either himself or the Collector, I must do them the justice to say, that not only was the clearance much better executed than heretofore, but I am confident the quantity of clearance done far exceeded that of any previous season since I have been in Sind, notwithstanding so much less than usual was paid for.

3. Two remarkable circumstances deserve notice—the one that very few complaints were made of any inaccuracy or injustice in measurement, proving that the European Canal Surveyors did their work fairly and satisfactorily to the Canal diggers ; the other, that one general outcry was produced through the country of the impossibility of working at the customary rates, and the free admission on the part of *all* Native officials that it was only by cheating that the Canal diggers lived, proving conclusively to my mind, that the system lately introduced has put a stop to fraud, and that previously fraud was universally practised.

4. Great credit is, I think, due to all the Revenue Officers, including Mr. Beatty, for the cordial co-operation that has existed, to which much of the success is attributable.

5. Referring to the 6th paragraph of the Collector's letter, I remark that the Canal Surveyors have not been employed exactly as I intended ; one of the chief objects I had in view in organising the establishment was to check fraud, but the means I proposed was not to have all the Canals measured by European agency, but to have the ordinary Native measurements checked by Europeans re-measuring portions. Mr. Bellasis believed, and I think justly, that in cases where such double measurements differed, it would still be difficult to prove fraud, and he, with my full concurrence, instituted the practice of getting most of the Canal clearance wholly measured by European agency. The result has been so satisfactory, that I strongly recommend its continuance, and for that purpose advise the employment of four additional Canal Surveyors, on Rupees 150 per mensem each, with the advantages enjoyed by the present Surveyors, such as a tent, tent carriage, and batta when in the field ; two of them to be employed in the Hyderabad, and two in the Kurrachee Districts.

6. I should be glad to see the charges for ordinary clearance separated from those of all improvements, and so shown in the Annual Statements ; otherwise it will be difficult hereafter to judge accurately of the effect of the change of system.

7. The papers received with your indorsement are returned.

8. I should be much obliged if you would permit a copy of the figured statement to be made for my use.

I have the honour to be, &c.

(Signed) H. B. TURNER, Lient. Colonel,  
Superintending Engineer, Sind.

*Shikarpore, 4th January 1856.*

(True copy)

LEWIS PELLY,  
Acting Assistant Commissioner.

## Statement showing the Cubic Contents of Excavation, and Cost of Clearance, in each

| 1       | 2                        | 3                   | 4              | 5                       | 6   | 7   | 8               | 9               |
|---------|--------------------------|---------------------|----------------|-------------------------|---|---|-----------------|-----------------|
| Number. | Name of Canal.           | Source.             | Talooka.       | Entire Length of Canal. | Length Excavated during the Season 1855-56. | The quantity Excavated during the Season 1855-56. | Rate per Rupee. | Cost of Labour. |
|         | HALLA.                   |                     |                | Lineal Guz.             | Lineal Guz.                                 | Cubic Guz. *                                      | Cubic Guz.      | Rs. a. p.       |
| 1       | Ali Gung .. ..           | Gharra .. ..        | Halla.         | 11,080                  | 11,080                                      | 17,037-6255                                       | 23              | 740 12 3        |
| 2       | Sarung .. ..             | Do. .. ..           |                | 20,363                  | 20,363                                      | 26,432-6250                                       | 23              | 1,147 4 1       |
| 3       | Luckee .. ..             | Do. .. ..           |                | 12,357                  | 12,357                                      | 6,597-6800  | 26              | 252 8 11        |
| 4       | Gharroe .. ..            | Do. .. ..           |                | 3,243                   | 3,243                                       | 9,523-2507  | 26              | 366 4 6         |
| 5       | Jamwah .. ..             | Great Manuk ..      |                | 8,436                   | 8,436                                       | 9,356-5000  | 26              | 359 13 10       |
| 6       | Joona Manuk ..           | Do. .. ..           |                | ..                      | 3,130                                       | 3,421-6255  | 29              | 117 15 9        |
| 7       | Oopao .. ..              | Awont .. ..         |                | 6,900                   | 6,900                                       | 7,187-4062  | 26              | 276 6 0         |
| 8       | Chakurwah ..             | Jamwah .. ..        |                | 5,100                   | ..  | 3,724-2187  | 26              | 143 2 8         |
| 9       | Moolucka ..              | Colab Gahole ..     |                | ..                      | ..  | .....   | ..              | .....           |
| 10      | Vunjeeree ..             | Do. .. ..           |                | ..                      | ..  | .....   | ..              | .....           |
| 11      | Toolsee Burriah ..       | .....               |                | ..                      | ..  | 614-6250  | 24              | 25 9 9          |
|         |                          |                     |                |                         |   | 83,895-5566                                       |                 | 3,431 13 9      |
| 1       | Moobaruck ..             | Colab Moola Sand .. | Sukkurund.     | ..                      | ..  | 2,783-5937  | 23              | 121 0 6         |
| 2       | Huzzaree ..              | Do. .. ..           |                | ..                      | 6,250                                       | 3,055-1350  | 23              | 132 13 4        |
| 3       | Chakurwah ..             | Do. .. ..           |                | ..                      | ..  | 1,868-0000  | 23              | .....           |
| 4       | Ooboora Lacka ..         | River .. ..         |                | 1,600                   | 200   | 400-5000  | 25              | 16 0 3          |
| 5       | Suddarung ..             | Do. .. ..           |                | ..                      | 710   | 2,850-0000  | 25              | 114 0 0         |
| 6       | Rhein .. ..              | Do. .. ..           |                | ..                      | 1,350                                       | 5,920-4600  | 23              | 257 6 6         |
| 7       | Aliwah .. ..             | Chakurwah ..        |                | ..                      | ..  | 409-2500  | 23              | .....           |
| 8       | Sorabwah ..              | Do. .. ..           |                | ..                      | ..  | 288-7500  | 23              | .....           |
| 9       | Meerwah ..               | Colab Moola Sand .. |                | ..                      | ..  | .....   | ..              | .....           |
| 10      | Hattaha ..               | Do. .. ..           |                | ..                      | ..  | .....   | ..              | .....           |
| 11      | Sooranie ..              | Huzzaree ..         |                | ..                      | ..  | .....   | ..              | .....           |
| 12      | Rhamwah ..               | Colab Futteypoor .. | Ghoram Murree. | ..                      | ..  | .....   | ..              | .....           |
| 13      | Marree Lakyar ..         | Colab Nuckoor ..    |                | ..                      | ..  | .....   | ..              | .....           |
| 14      | Soware do. ..            | Do. .. ..           |                | ..                      | ..  | .....   | ..              | .....           |
| 15      | Yarooowah ..             | Moobaruck ..        |                | ..                      | ..  | .....   | ..              | .....           |
| 16      | Kurriah ..               | Huzzaree ..         |                | ..                      | ..  | .....   | ..              | .....           |
| 17      | Loondah ..               | Do. .. ..           |                | ..                      | ..  | .....   | ..              | .....           |
| 18      | Kurriah Butchul Mahmood. | Moobaruck ..        |                | ..                      | ..  | .....   | ..              | .....           |
| 1       | Waharwah ..              | River .. ..         |                | 7,675                   | 3,350                                       | 7,034-7560  | 29              | 242 9 8         |
| 2       | Kambo ..                 | Do. .. ..           |                | 5,750                   | 2,630                                       | 3,398-3700  | 29              | 117 3 3         |
| 3       | Susawah ..               | Do. .. ..           |                | 3,300                   | 513   | 2,199-6500  | 24              | 91 5 0          |
| 4       | Daughee ..               | Susawah ..          |                | 1,900                   | 1,500                                       | 2,011-7100  | 29              | 69 4 11         |
| 5       | Gow Burwah ..            | Dadwah ..           |                | 10,500                  | ..  | 10,018-2812                                       | 24              | 417 6 0         |
| 6       | Ali Bhur ..              | River .. ..         |                | 5,400                   | ..  | 10,715-6250                                       | 24              | 446 7 9         |
| 7       | Kahah ..                 | Do. .. ..           |                | ..                      | ..  | 1,390-6250  | 27              | 51 8 1          |
|         |                          |                     |                |                         |   | 54,344-7059                                       |                 | 2,077 1 3       |
|         |                          |                     |                | Carried forward..       |   |   |                 |                 |



| 1       | 2                         | 3                          | 4              | 5                       | 6   | 7   | 8               | 9               |
|---------|---------------------------|----------------------------|----------------|-------------------------|---|---|-----------------|-----------------|
| Number. | Name of Canal.            | Source.                    | Talooka.       | Entire Length of Canal. | Length Excavated during the Season 1855-50. | The quantity Excavated during the Season 1855-50. | Rate per Rupee. | Cost of Labour. |
|         |                           |                            |                | Lineal Guz.             | Lineal Guz.                                 | Cubic Guz.  | Cubic Guz.      | Rs. a. p.       |
|         |                           |                            |                | Brought over..          |   | 54,344-7059                                       | ..              | 2,077 1 3       |
| 8       | Rahargee .. ..            | Waherwah .. ..             | Ghoram Murree. | ..                      | ..  | 896-8750  | 24              | 37 5 10         |
| 9       | Yukliar .. ..             | Do. .. ..                  |                | ..                      | ..  | 1,690-6250  | 29              | 58 4 9          |
| 10      | Oobahoo .. ..             | River .. ..                |                | ..                      | ..  | .....   | ..              | .....           |
| 11      | Loolur .. ..              | Waherwah .. ..             |                | ..                      | ..  | .....   | ..              | .....           |
| 12      | Wahar Chota .. ..         | Do. .. ..                  |                | ..                      | ..  | .....   | ..              | .....           |
| 13      | Kattie .. ..              | Reeharjee .. ..            |                | ..                      | ..  | .....   | ..              | .....           |
| 14      | Gharrah .. ..             | River .. ..                |                | ..                      | ..  | .....   | ..              | .....           |
| 15      | Garree .. ..              | Doorah .. ..               |                | ..                      | ..  | .....   | ..              | .....           |
| 16      | Nalla Mawassee .. ..      | Do. .. ..                  |                | ..                      | ..  | .....   | ..              | .....           |
| 17      | Kassimwah .. ..           | Do. .. ..                  |                | ..                      | ..  | .....   | ..              | .....           |
| 18      | Nala Bobur .. ..          | Do. .. ..                  |                | ..                      | ..  | .....   | ..              | .....           |
|         |                           |                            |                |                         |   | 56,932-2059                                       |                 | 2,172 11 10     |
| 1       | Ali Bhur .. ..            | River .. ..                | Shadadpoor.    | 39,330                  | 21,375                                      | 29,012-6562                                       | 21              | 1,381 8 10      |
| 2       | Burroon Shurakuttee .. .. | Ali Bhur .. ..             |                | 3,350                   | 32,175                                      | 2,885-1250  | 21              | 137 6 2         |
| 3       | Yarroowah .. ..           | Do. .. ..                  |                | 9,500                   | 6,250                                       | 2,953-1250  | 21              | 140 10 10       |
| 4       | Ali Gung .. ..            | Yarroowah .. ..            |                | 3,130                   | 600   | 262-5000  | 21              | .....           |
| 5       | Ali Bhur (old) .. ..      | Ali Gung .. ..             |                | 3,150                   | 2,825                                       | 1,353-3593  | 21              | 64 7 2          |
| 6       | Burroon Kolassa .. ..     | Burroon Shurakuttee, .. .. |                | 15,664                  | ..  | .....   | 21              | .....           |
| 7       | Monjwah .. ..             | Soomer .. ..               |                | ..                      | 914   | 520-2500  | 21              | 24 12 2         |
| 8       | Mussoowah .. ..           | Do. .. ..                  |                | ..                      | 624   | 433-7812  | 21              | .....           |
| 9       | Khairwah .. ..            | Mussoowah .. ..            |                | ..                      | 1,925                                       | 1,381-2500  | 21              | .....           |
| 10      | Awut .. ..                | Colab Ghoote .. ..         |                | ..                      | ..  | 1,430-7500  | 20              | 71 8 6          |
| 11      | Great Manuk .. ..         | River .. ..                |                | 14,594                  | 6,150                                       | 27,091-8437                                       | 24              | 1,162 9 3       |
| 12      | Joona Manuk .. ..         | Great Manuk .. ..          |                | 7,480                   | 4,350                                       | 2,867-1875  | 24              | 136 6 10        |
| 13      | Vanderee .. ..            | Do. .. ..                  |                | ..                      | ..  | 295-6250  | 24              | .....           |
| 14      | Gung Bhur .. ..           | Vanderee .. ..             |                | 8,100                   | 8,100                                       | 13,446-4800                                       | 21              | 640 5 9         |
| 15      | Great Lohannah .. ..      | Do. .. ..                  |                | ..                      | ..  | 517-0625  | 24              | .....           |
| 16      | Mahmoedwah .. ..          | Great Lohannah .. ..       |                | ..                      | 5,340                                       | 3,332-5937  | 24              | 138 12 4        |
| 17      | Byramwah .. ..            | Do. .. ..                  |                | ..                      | 3,100                                       | 1,662-7500  | 24              | 69 4 6          |
| 18      | Chota Lohannah .. ..      | Gung Bhur .. ..            |                | 9,441                   | ..  | 1,140-8750  | 24              | .....           |
| 19      | Jamwah .. ..              | Chota Lohannah .. ..       |                | ..                      | 4,000                                       | 8,562-5000  | 27              | 317 2 1         |
| 20      | Shahwah .. ..             | Do. .. ..                  |                | ..                      | 7,734                                       | 12,124-6250                                       | 24              | 505 3 1         |
| 21      | Rajwah .. ..              | Jamwah .. ..               |                | 4,000                   | 3,918                                       | 2,292-3750  | 27              | 84 14 5         |
| 22      | Nindah .. ..              | Do. .. ..                  |                | ..                      | 550   | 915-5937  | 27              | 33 14 6         |
| 23      | Boburwah .. ..            | Do. .. ..                  |                | ..                      | ..  | 1,218-5000  | 27              | .....           |
| 24      | Jamwah-si-Guzza .. ..     | Do. .. ..                  |                | ..                      | 2,567                                       | 3,234-8437  | 27              | 119 12 11       |
| 25      | Shadad Landee .. ..       | Shahwah .. ..              |                | 3,742                   | 3,700                                       | 4,391-3750  | 24              | 182 15 7        |
| 26      | Huzoorwah .. ..           | Shadad Landee .. ..        |                | ..                      | 9,350                                       | 5,826-2500  | 24              | 242 12 2        |
| 27      | Beejar .. ..              | Shahwah .. ..              |                | ..                      | 3,229                                       | 2,633-5625  | 21              | 125 7 5         |
| 28      | Old Wungee .. ..          | Do. .. ..                  |                | ..                      | 1,162                                       | 1,265-2500  | 21              | 60 3 6          |
| 29      | Khairia .. ..             | Do. .. ..                  |                | ..                      | 1,644                                       | 1,838-5000  | 24              | 76 9 8          |
| 30      | Mahomed Ali .. ..         | Do. .. ..                  |                | ..                      | 4,030                                       | 5,038-8750  | 24              | 209 15 3        |
|         |                           |                            |                | Carried forward..       |   | 139,929-4640                                      |                 | 5,926 10 11     |



| 1      | 2                    | 3                     | 4                | 5                       | 6   | 7   | 8               | 9               |
|--------|----------------------|-----------------------|------------------|-------------------------|---|---|-----------------|-----------------|
| Number | Name of Canal.       | Source.               | Talooka.         | Entire length of Canal. | Length Excavated during the Season 1855-56. | The quantity Excavated during the Season 1855-56. | Rate per Rupee. | Cost of Labour. |
|        |                      |                       |                  | Lineal Guz.             | Lineal Guz.                                 | Cubic Guz.  | Cubic Guz.      | Rs. a. p.       |
|        |                      |                       |                  | Brought over..          |   | 139,929-4640                                      | ..              | 5,926 10 11     |
| 31     | Shadad Jhool .. ..   | Shahwah .. ..         | Shadadpoor.      | ..                      | 5,479                                       | 4,564-8437  | 24              | 190 3 3         |
| 32     | Do. Kurriah .. ..    | Shadad Jhool .. ..    |                  | ..                      | 2,780                                       | 2,459-1250  | 24              | 102 14 1        |
| 33     | Vunjee Beejar .. ..  | Beejar .. ..          |                  | ..                      | ..  | 4,721-3850  | 21              | 224 13 3        |
| 34     | Chota Manuk .. ..    | Gharrah .. ..         |                  | 10,681                  | 4,500                                       | 9,079-7500  | 24              | 378 5 2         |
| 35     | Noorwah .. ..        | Do. .. ..             |                  | 3,617                   | 3,617                                       | 7,659-5625  | 24              | 319 2 4         |
| 36     | Parroowah .. ..      | Chota Manuk .. ..     |                  | 4,625                   | 4,625                                       | 3,575-7875  | 24              | 148 15 6        |
| 37     | Khair .. ..          | Ali Gung .. ..        |                  | ..                      | ..  | .....   | ..              | .....           |
| 38     | Gharrah .. ..        | River .. ..           |                  | ..                      | ..  | .....   | ..              | .....           |
| 39     | Do. (small) .. ..    | Do. .. ..             |                  | ..                      | ..  | .....   | ..              | .....           |
| 40     | Seroyah .. ..        | Awut .. ..            |                  | ..                      | ..  | .....   | ..              | .....           |
| 41     | Rajwah .. ..         | River .. ..           |                  | ..                      | ..  | .....   | ..              | .....           |
| 42     | Soomere .. ..        | Barroon Shurakuttee.  |                  | ..                      | ..  | .....   | ..              | .....           |
| BUNDS. |                      |                       |                  |                         |   | 171,989-9177                                      |                 | 7,291 0 6       |
| 1      | Luckee Bund .. ..    | } Halla .. ..         | } Halla.         | ..                      | ..  | 529-7810  | ..              | 30 1 7          |
| 2      | Gahote Bund .. ..    |                       |                  | ..                      | ..  | 908-2187  | 20              | 45 6 7          |
| 3      | Hurzee Bund .. ..    |                       |                  | ..                      | ..  | .....   | ..              | .....           |
|        |                      |                       |                  |                         |   | 1,437-9997  |                 | 75 8 2          |
| 1      | Doy Maree Bund .. .. | } Sukkurrund .. ..    | } Sukkurrund.    | ..                      | ..  | .....   | ..              | .....           |
| 2      | Ooboorah Lakah .. .. |                       |                  | ..                      | ..  | 154-7500  | ..              | 7 11 10         |
| 3      | Jullulane .. ..      |                       |                  | ..                      | ..  | 9,813-3750  | 20              | 490 9 3         |
| 4      | Shere Khan .. ..     |                       |                  | ..                      | ..  | .....   | ..              | .....           |
| 5      | Durriyah Khan .. ..  |                       |                  | ..                      | ..  | 726-0000  | ..              | 27 14 8         |
|        |                      |                       |                  |                         |   | 10,694-1250                                       |                 | 526 3 9         |
| 1      | Bund Chaluk .. ..    | } Ghoram Murree .. .. | } Ghoram Murree. | ..                      | ..  | .....   | ..              | .....           |
| 2      | Do. Selaree .. ..    |                       |                  | ..                      | ..  | .....   | ..              | .....           |
| 3      | Do. Kohar .. ..      |                       |                  | ..                      | ..  | .....   | ..              | .....           |
| 4      | Do. Sookapoor .. ..  |                       |                  | ..                      | ..  | .....   | ..              | .....           |
| 5      | Do. Roharjee .. ..   |                       |                  | ..                      | ..  | 529-5000  | 24              | 22 1 0          |
|        |                      |                       |                  |                         |   | 529-5000  |                 | 22 1 0          |
| 1      | Lakyar .. ..         | Indus .. ..           | } Muttaree.      | ..                      | ..  | 7,972-6562  | 25              | 318 14 6        |
| 2      | Kummal .. ..         | Do. .. ..             |                  | } 8,486                 | } 1,300                                     | 3,071-4843  | 19              | 161 10 6        |
| 3      | Do. Tail .. ..       | Foolalee .. ..        |                  |                         |   | 3,420-7031  | 20              | 171 0 7         |
| 4      | Bohrka .. ..         | Indus .. ..           |                  |                         |   | 1,531-0546  | 27              | 56 11 3         |
| 5      | Ali Bhur .. ..       | Do. .. ..             |                  |                         |   | 1,854-5859  | 27              | 68 11 0         |
| 6      | Khyrwah .. ..        | Nupeerwah .. ..       |                  |                         |   | 1,921-5781  | 27              | 71 2 4          |
| 7      | Goduwah .. ..        | Do. .. ..             |                  |                         |   | 484-7656  | 27              | 17 15 3         |
|        |                      |                       |                  |                         |   | 20,256-8278                                       |                 | 866 1 5         |





| 1       | 2                     | 3                  | 4         | 5                       | 6   | 7   | 8               | 9               |
|---------|-----------------------|--------------------|-----------|-------------------------|---|---|-----------------|-----------------|
| Number. | Name of Canal.        | Source.            | Talooka.  | Entire Length of Canal. | Length Excavated during the Season 1855-56. | The quantity Excavated during the Season 1855-56. | Rate per Rupee. | Cost of Labour. |
|         | HYDRABAD.             |                    |           | Lineal Guz.             | Lineal Guz.                                 | Cubic Guz.  | Cubic Guz.      | Rs. a. p.       |
| 1       | Sindwah .. ..         | Foolailee .. ..    | Hydrabad. | 10,200                  | 10,200                                      | 12,397-1679                                       | 22              | 563 0 10        |
| 2       | Bahawul .. ..         | Sindwah .. ..      |           | 2,500                   | 2,500                                       | 1,762-5976  | 29              | 60 12 5         |
| 3       | Khyrwah .. ..         | Do. .. ..          |           | 2,800                   | 2,800                                       | 1,710-6054  | 26              | 65 12 8         |
| 4       | Kurreenwah .. ..      | Khyrwah .. ..      |           | 1,053                   | 1,050                                       | 293-7500  | 29              | 10 2 0          |
| 5       | Moreewah .. ..        | Sindwah .. ..      |           | 6,456                   | 6,455                                       | 3,714-2968  | 26              | 142 13 9        |
| 6       | Nupeerwah .. ..       | Do. .. ..          |           | 2,909                   | 2,900                                       | 1,197-3632  | 29              | 41 4 7          |
| 7       | Emamwah .. ..         | Foolailee .. ..    |           | 12,659                  | 12,632                                      | 12,199-3085                                       | 25              | 487 15 6        |
| 8       | Baghwah .. ..         | Emamwah .. ..      |           | 6,650                   | 6,650                                       | 2,583-3906  | 24              | 107 10 3        |
| 9       | Ali Bhur .. ..        | Do. .. ..          |           | 1,350                   | 1,100                                       | 543-3593  | 24              | 22 10 3         |
| 10      | Hoosree .. ..         | Do. .. ..          |           | 5,288                   | 2,950                                       | 1,063-1250  | 24              | 43 14 2         |
| 11      | Old Hoosree .. ..     | Do. .. ..          |           | 550                     | 550   | 330-8593  | 24              | 13 12 7         |
| 12      | Khyrwah .. ..         | Foolailee .. ..    |           | ..                      | 3,166                                       | 3,371-9375  | 19              | 177 7 6         |
| 13      | Meerwah .. ..         | Do. .. ..          |           | 4,560                   | 4,560                                       | 4,158-6132  | 19              | 218 14 0        |
| 14      | Furreedwah .. ..      | Do. .. ..          |           | 200                     | 200   | 220-7500  | 22              | 10 0 6          |
| 15      | Chundun .. ..         | Indus .. ..        |           | ..                      | 799   | 2,398-3125  | 23              | 104 4 4         |
| 16      | Nurree .. ..          | Chundun .. ..      |           | 182                     | 182   | 143-7421  | 27              | 5 5 2           |
| 17      | Kangun Radee .. ..    | Do. .. ..          |           | ..                      | ..  | ..  | ..              | ..              |
| 18      | Kasghee .. ..         | Do. .. ..          |           | ..                      | 720   | 263-9257  | 26              | 10 2 5          |
| 19      | Jumdol .. ..          | Khasgee .. ..      |           | 3,117                   | 3,000                                       | 1,801-9531  | 31              | 58 2 0          |
| 20      | Ushad .. ..           | Foolailee .. ..    |           | 3,150                   | 2,450                                       | 2,245-4492  | 31              | 72 6 10         |
| 21      | Huzzaree .. ..        | Kangun Radee .. .. |           | 2,250                   | 2,250                                       | 608-7890  | 27              | 22 8 9          |
| 22      | Chundun .. ..         | Foolailee .. ..    |           | 850                     | 850   | 523-2421  | 27              | 19 6 0          |
| 23      | Goondwur Ree .. ..    | Do. .. ..          |           | ..                      | 1,550                                       | 921-6796  | 27              | 34 2 2          |
| 24      | Loondah .. ..         | Indus .. ..        |           | 1,650                   | 1,650                                       | 972 0703  | 31              | 31 5 8          |
| 25      | Vahdoo .. ..          | Kangun Radee .. .. |           | ..                      | 1,500                                       | 551-5625  | 27              | 20 6 11         |
| 26      | Kaffee .. ..          | Indus .. ..        |           | ..                      | 1,400                                       | 536-1328  | 27              | 17 4 8          |
| 27      | Ali Bhur .. ..        | Do. .. ..          |           | ..                      | 1,000                                       | 572-2656  | 31              | 18 7 4          |
| 28      | Shah Ghur .. ..       | Do. .. ..          |           | ..                      | 1,350                                       | 864-0625  | 27              | 32 0 0          |
| 29      | Mull .. ..            | Do. .. ..          |           | ..                      | 1,400                                       | 505-8750  | 31              | 16 5 1          |
| 30      | Kasim Kurriah .. ..   | Emamwah .. ..      |           | ..                      | 2,700                                       | 1,230-8046  | 27              | 45 9 4          |
| 31      | Tail Emamwah .. ..    | Do. .. ..          |           | 1,413                   | 462   | 253-6171  | 27              | 9 6 3           |
| 32      | Murdow Bora .. ..     | Old Hoosree .. ..  |           | ..                      | 350   | 321-8750  | 27              | 11 14 8         |
| 33      | Do. .. ..             | Do. .. ..          |           | ..                      | 225   | 225-0000  | 27              | 8 5 4           |
| 34      | Bagharree .. ..       | Emamwah .. ..      |           | ..                      | 650   | 562-5000  | 27              | 20 13 4         |
| 35      | Meerwah .. ..         | Sindwah .. ..      |           | ..                      | 1,140                                       | 408 3203  | 30              | 13 9 9          |
| 36      | Vassoo .. ..          | Do. .. ..          |           | ..                      | 1,380                                       | 485-2343  | 30              | 16 2 0          |
| 37      | Rowhoo .. ..          | Noorwah .. ..      |           | ..                      | 1,280                                       | 686-7187  | 30              | 22 14 3         |
| 38      | Bund .. ..            | Emamwah .. ..      |           | ..                      | ..  | ..  | ..              | ..              |
| 39      | Sungutwah .. ..       | Foolailee .. ..    |           | 2,000                   | 2,000                                       | 1,546-2587  | 23              | 67 3 8          |
| 40      | Bundywan .. ..        | Do. .. ..          |           | ..                      | 550   | 243-3593  | 27              | 9 0 2           |
| 41      | Foolailee Mouth .. .. | Indus .. ..        |           | ..                      | 231   | 2,908-9512  | 14              | 207 12 6        |
|         | Do. .. ..             | Do. .. ..          |           | ..                      | ..  | ..  | ..              | 2,077 3 1       |
|         | Kurrias .. ..         | Do. .. ..          |           | ..                      | ..  | ..  | ..              | ..              |
|         |                       |                    |           |                         |   | 67,328-8255                                       |                 | 4,938 4 8       |



| 1                | 2                    | 3                   | 4                            | 5                       | 6   | 7   | 8               | 9                                 |
|------------------|----------------------|---------------------|------------------------------|-------------------------|---|---|-----------------|-----------------------------------|
| Number.          | Name of Canal.       | Source.             | Talooka.                     | Entire Length of Canal. | Length Excavated during the Season 1855-56. | The quantity Excavated during the Season 1855-56. | Rate per Rupee. | Cost of Labour.                   |
|                  |                      |                     |                              | Lineal Guz.             | Lineal Guz.                                 | Cubic Guz.  | Cubic Guz.      | Rs. a. p.                         |
| MEERPOOR.        |                      |                     |                              |                         |   |   |                 |                                   |
| 1                | Great Sangrah .. ..  | River .. ..         | Meerpoor.                    | ..                      | 1,325                                       | 3,858-5170  | 18              | 271 10 4                          |
|                  | Do .. ..             | Do .. ..            |                              | ..                      | ..  | 1,031-0780  |                 |                                   |
| 2                | Dosahwah .. ..       | Sangrah .. ..       |                              | ..                      | 8,230                                       | 23,011-0312                                       | 20              | 1,152 3 2                         |
| 3                | Chota Leit .. ..     | Chota Leit .. ..    |                              | ..                      | 2,579                                       | 4,566-1023  | 20              | 228 5 1                           |
| 4                | Dorah Leit .. ..     | Do .. ..            |                              | 400                     | 400   | 350 6-75  | 20              | 17 8 0                            |
| 5                | Rawuck .. ..         | Sangrah .. ..       |                              | ..                      | 5,300                                       | 8,330 9687  | 20              | 416 8 9                           |
| 6                | Boophar .. ..        | Rawuck .. ..        |                              | ..                      | 3,979                                       | 3,105-3125  | 20              | 170 4 3                           |
| 7                | Kaboo .. ..          | Do .. ..            |                              | ..                      | 350   | 525-0000  | 20              | 25 4 0                            |
| 8                | Ayah Rupree .. ..    | Sangrah .. ..       |                              | ..                      | 5,812                                       | 8,179 8437  | 27              | 302 15 4                          |
| 9                | Mohbut Murree .. ..  | Do .. ..            |                              | ..                      | 2,880                                       | 2,664-2734  | 27              | 98 10 10                          |
| 10               | Peerah .. ..         | Chota Sangrah .. .. |                              | ..                      | 6,089                                       | 5,017-2968  | 20              | 250 13 9                          |
| 11               | Sangrah, Chota .. .. | Sangrah .. ..       | ..                           | ..                      | .....                                       | ..  | ....            |                                   |
|                  |                      |                     |                              |                         |   | 60,973-1111                                       |                 | 2,935 3 6                         |
| 1                | Surfrazwah .. ..     | Indus .. ..         | Joodah.                      | ..                      | 16,411                                      | 750 6250<br>55,369-7500<br>18,654 6250            | 17<br>27<br>17  | 44 2 5<br>2,050 11 6<br>1,097 5 4 |
| 2                | Meerwah .. ..        | Goonce .. ..        |                              | ..                      | 4,000                                       | 1,125-0000  | 18              | 62 8 0                            |
| 3                | Seeloor .. ..        | Meerwah .. ..       |                              | ..                      | 6,950                                       | 3,257-4375  | 18              | 180 15 6                          |
| 4                | Chowguza .. ..       | Buggee .. ..        |                              | ..                      | 5,150                                       | 2,346-6875  | 18              | 130 5 6                           |
| 5                | Buggee .. ..         | Meerwah .. ..       |                              | ..                      | ..  | ..  | ..              | .....                             |
| 6                | Emamwah .. ..        | Foolailee .. ..     |                              | ..                      | 8,508                                       | 635-4375<br>10,101-7500                           | 30<br>27        | 21 2 9<br>371 2 2                 |
| 7                | Khantah .. ..        | Emamwah .. ..       |                              | ..                      | 1,700                                       | 1,055-5625  | 33              | 31 15 9                           |
| 8                | Baramwah .. ..       | Do .. ..            |                              | ..                      | 725   | 187-5000  | 30              | 6 4 0                             |
| 9                | Charguzza .. ..      | Surfrazwah .. ..    |                              | ..                      | 2,125                                       | 1,062-5000  | 30              | 35 6 8                            |
| 10               | Gurrah .. ..         | Do .. ..            |                              | ..                      | 1,834                                       | 738-8125  | 30              | 24 10 0                           |
| 11               | Mooreedwah .. ..     | Do .. ..            |                              | ..                      | ..  | 397-6875  | 27              | 14 11 8                           |
| 12               | Loonda Bagmut .. ..  | Do .. ..            |                              | ..                      | ..  | 2,436-5625  | 30              | 81 3 6                            |
|                  |                      |                     |                              |                         |   | 98,119-9375                                       |                 | 4,155 8 9                         |
| 1                | Ali Bhur .. ..       | Indus .. ..         | Adam Khan's Tanda.           | 21,750                  | 2,150<br>4,101                              | 8,572-3984<br>7,040 0625                          | 21 1/2<br>24    | 398 3 7<br>293 5 4                |
| 1                | Dhora .. ..          | Gulloo .. ..        | Ghorechancee, Talooka Alyar. | ..                      | 1,889                                       | 3,651-2500  | 27              | 135 3 8                           |
| 2                | Meerwah .. ..        | Dhora .. ..         |                              | ..                      | 11,671                                      | 9,302-1875  | 29              | 320 12 2                          |
| 3                | Meerwah (old) .. ..  | Meerwah .. ..       |                              | ..                      | 4,250                                       | 1,061-9375  | 33              | 32 2 10                           |
| 4                | Chahoowah .. ..      | Sundra .. ..        |                              | ..                      | ..  | 1,621-9375  | 33              | 49 2 4                            |
| 5                | Do. Tail .. ..       | Do .. ..            |                              | ..                      | 6,550                                       | 1,547-3125  | 33              | 46 14 2                           |
| 6                | Jurwarwah .. ..      | Gulloo .. ..        |                              | ..                      | 6,329                                       | 3,427-0625  | 33              | 103 13 8                          |
| 7                | Munjaree .. ..       | Sundra .. ..        |                              | ..                      | 700   | 303-5625  | 33              | 9 3 2                             |
| 8                | Sundra .. ..         | Do .. ..            |                              | ..                      | ..  | 186-8125  | 33              | 5 10 6                            |
| 9                | Bikarah .. ..        | Meerwah .. ..       |                              | ..                      | 4,600                                       | 1,748-5000  | 33              | 52 15 7                           |
| Carried forward. |                      |                     |                              |                         |   | 38,463-0234                                       |                 | 1,447 7 0                         |



| 1                     | 2                             | 3                 | 4               | 5                       | 6   | 7   | 8               | 9               |
|-----------------------|-------------------------------|-------------------|-----------------|-------------------------|---|---|-----------------|-----------------|
| Number.               | Name of Canal.                | Source.           | Talooka.        | Entire Length of Canal. | Length Excavated during the Season 1855-56. | The quantity Excavated during the Season 1855-56. | Rate per Rupee. | Cost of Labour. |
|                       |                               |                   |                 | Lineal Guz.             | Lineal Guz.                                 | Cubic Guz.  | Cubic Guz.      | Rs. a. p.       |
|                       |                               |                   |                 | Brought over            |   | 38,463-0234                                       | .               | 1,447 7 0       |
| 1                     | Karee Shumalee ..             | Indus ..          | Allypore-Tanda. | 2,330                   | 1,450                                       | 11,020-9434                                       | 20              | 551 0 9         |
| 2                     | Do. Tail ..                   |                   |                 |                         | 880   | 12,953-2617                                       | 20              | 647 10 7        |
| 3                     | Junohee ..                    | Do. ..            |                 | 2,260                   | ..  | ..  | ..              | ..              |
| 4                     | Peerwah ..                    | Do. ..            |                 | 2,482                   | ..  | ..  | ..              | ..              |
| 5                     | Gulloo ..                     | 3 mouths ..       |                 | ..                      | 585   | 2,935-2812  | 25              | 118 9 8         |
| 6                     | Nugunwah ..                   | Gulloo ..         |                 | ..                      | 6,007                                       | 2,946-9062  | 28½             | 103 6 5         |
| 7                     | Abbool ..                     | Do. ..            |                 | 10,774                  | 5,000                                       | 1,930-1835  | 28½             | 67 11 2         |
| 8                     | Bidjah ..                     | Do. ..            |                 | ..                      | 4,250                                       | 2,353-6835  | 28½             | 82 9 2          |
| 9                     | Nurree ..                     | Do. ..            |                 | 907                     | 907   | 362-0000  | 28½             | 12 11 4         |
| 10                    | Gureebwah ..                  | Kasannah ..       |                 | ..                      | ..  | ..  | ..              | ..              |
| 11                    | Kasannah ..                   | Nusseerwah ..     |                 | ..                      | 6,150                                       | 8,858-2539  | 22              | 402 10 5        |
| 12                    | Gahowrah ..                   | Do. ..            |                 | 19,300                  | ..  | ..  | ..              | ..              |
| 13                    | Sujawul ..                    | Gahowrah ..       |                 | 8,850                   | 5,568                                       | 4,699-4140  | 22              | 213 9 10        |
| 14                    | Alaikae ..                    | Gulloo ..         |                 | 12,775                  | 475   | 371-0937  | 27              | 13 11 11        |
| 15                    | Khanwah ..                    | Do. ..            |                 | ..                      | 1,650                                       | 1,063-6914  | 23              | 46 3 11         |
| 16                    | Koomb ..                      | Khanwa ..         |                 | 1,142                   | 1,142                                       | 741-1218  | 23              | 32 5 10         |
| 17                    | Sonewah ..                    | Gahowrah ..       |                 | 11,000                  | 2,100                                       | 2,448-8867  | 23              | 106 7 7         |
| 18                    | Jummul ..                     | Kasannah ..       |                 | 3,750                   | 3,750                                       | 4,763-2695  | 23              | 207 1 7         |
| 19                    | Kummul ..                     | Do. ..            |                 | 1,800                   | 1,600                                       | 2,529-0859  | 23              | 109 15 4        |
| 20                    | Ahmed Khan ..                 | Gahowrah ..       |                 | 2,500                   | 2,500                                       | 2,109-5703  | 23              | 91 11 6         |
| 21                    | Surree ..                     | Do. ..            |                 | ..                      | 1,032                                       | 783-6914  | 23              | 34 1 2          |
| 22                    | Sotea ..                      | Do. ..            |                 | ..                      | ..  | ..  | ..              | ..              |
| 23                    | Manukwah ..                   | Gulloo ..         |                 | ..                      | 3,000                                       | 2,505-4687  | 22              | 113 14 2        |
| 24                    | Gharee ..                     | Emamwah ..        |                 | ..                      | ..  | 722-0625  | 27              | 26 11 11        |
| 25                    | Nupeerwah ..                  | Indus ..          |                 | ..                      | ..  | ..  | ..              | ..              |
| 26                    | Rajwah ..                     | Do. ..            |                 | ..                      | ..  | ..  | ..              | ..              |
| 27                    | Jakhrah ..                    | Do. ..            |                 | ..                      | ..  | ..  | ..              | ..              |
| 28                    | Meerwah ..                    | Do. ..            |                 | ..                      | ..  | ..  | ..              | ..              |
| MAHOMED KHAN'S TANDA. |                               |                   |                 |                         |   | 104,564-1927                                      |                 | 4,429 11 3      |
| 1                     | Hussein Aliwah ..             | Indus ..          | Goonee.         | 15,000                  | 3,800                                       | 3,894-4375  | 22-6523         | 327 13 9        |
|                       | Do. Tail ..                   | Hussein Aliwah .. |                 |                         |   | 3,586-8125  | 23              |                 |
| 2                     | Dundee Purgana ..             |                   |                 | 4,300                   | 4,150                                       | 3,848-6250  | 23              | 167 5 4         |
| 3                     | { Soondah Hussein Aliwah .. } | Do. ..            |                 | 1,250                   | 900   | 859-3750  | 23              | 37 5 9          |
| 4                     | Kheirwah ..                   | Indus ..          |                 | 19,000                  | 1,550                                       | 4,174-6250  | 24-5820         | 343 8 7         |
|                       | Do. (new) ..                  | Kheirwah ..       |                 | 3,450                   | 2,700                                       | 4,343-5625  | 25              |                 |
| 5                     | Noorwah ..                    | Indus ..          |                 | 6,750                   | 1,850                                       | 3,616-3125  | 26              | 139 1 5         |
|                       |                               |                   |                 |                         | 700   | 2,327-8125  | 23              | 101 3 4         |
| 7                     | Wah Sing ..                   | Do. ..            |                 | 7,000                   | 6,200                                       | 306-7500  |                 | 13 5 4          |
| 8                     | Meerwah ..                    | Do. ..            |                 | 2,500                   | 2,500                                       | 4,530-8125  | 23              | 196 15 8        |
|                       |                               |                   |                 |                         |   | 2,102-5000  | 24              | 87 9 4          |
| Carried forward.      |                               |                   |                 |                         |   | 33,591-6250                                       |                 | 1,414 4 6       |



| 10                                       | 11                  | 12                                 | 13               | 14               | 15  |          |         | 16  | 17      |
|--|---------------------|------------------------------------|------------------|------------------|---|----------|---------|---|---------|
| Removing Too-<br>das by Bill<br>Mooktee. | Cutting<br>Jungles. | Total of Columns<br>9, 10, and 11. | Cost in 1854-55. | Cost in 1853-54. | Quantity of Jagheer or<br>Government Land watered<br>by each Canal. |          |         | Date on<br>which the<br>Water en-<br>tered each<br>Canal. | Remarks |
|  |                     |                                    |                  |                  | Govarn-<br>ment.  | Jagheer. | Total.  |   |         |
| Rs. a. p.                                | Rs. a. p.           | Rs. a. p.                          | Rs. a. p.        | Rs. a. p.        | Beegas.   | Beegas.  | Beegas. |   |         |
| 102 7 10                                 | 2 7 0               | 1,552 5 10                         | 2,667 7 5        | 1,882 4 0        | 16,985  | 8,550    | 25,535  |   |         |
| 3 0 0                                    | 15 9 0              | 1,242 7 2                          | .....            | .....            | ..  | 200      | 200     |   |         |
| 21 5 10                                  | 3 13 0              |                                    |                  |                  |   |          |         |   |         |
| 23 8 0                                   | .....               | 23 8 0                             | 1,313 5 9        | .....            | ..  | ..       | ..      |   |         |
| .....                                    | .....               | .....                              | 965 6 11         | .....            | ..  | ..       | ..      |   |         |
| 230 0 3                                  | 5 0 0               | 353 9 11                           | 1,599 0 8        | 509 1 3          | ..  | ..       | ..      | 13 June   |         |
| 23 1 10                                  | .....               | 126 8 3                            | 72 2 5           | 145 4 11         | 870   | 790      | 1,660   | 14 do.  |         |
| 13 12 0                                  | .....               | 81 7 2                             | 55 1 4           | 84 5 11          | 840   | 50       | 890     | 14 do.  |         |
| 13 4 0                                   | .....               | 95 13 2                            | .....            | 129 6 6          | 890   | 150      | 1,040   | 14 do.  |         |
| .....                                    | .....               | 12 11 4                            | .....            | .....            | ..  | ..       | ..      |   |         |
| .....                                    | .....               | .....                              | 248 0 5          | 111 6 9          | 1,471   | ..       | 1,471   |   |         |
| 32 14 8                                  | .....               | 435 9 1                            | 528 3 0          | 636 9 2          | 1,930   | 130      | 2,010   | 24 June   |         |
| 34 1 0                                   | .....               | 34 1 0                             | 105 7 7          | 337 7 6          | 3,776   | ..       | 3,776   | 2 July  |         |
| 23 5 0                                   | 6 8 0               | 243 6 10                           | 117 14 0         | 103 11 8         | 956   | ..       | 956     | 4 do.   |         |
| 15 4 0                                   | .....               | 28 15 11                           | 145 15 11        | 111 15 1         | 1,460   | 520      | 1,980   | 13 June   |         |
| 23 7 9                                   | 5 0 0               | 74 11 8                            | 113 10 8         | 127 3 11         | 3,634   | ..       | 3,634   | 13 do.  |         |
| 7 7 10                                   | .....               | 39 13 8                            | .....            | .....            | 200   | ..       | 200     |   |         |
| 14 12 0                                  | .....               | 121 3 7                            | 159 6 5          | 119 6 8          | 735   | ..       | 735     |   |         |
| 23 10 0                                  | 7 0 0               | 237 11 7                           | .....            | .....            | 400   | ..       | 400     | 4 July  |         |
| 18 . 2                                   | 2 8 0               | 130 7 6                            | 35 3 6           | .....            | 900   | ..       | 900     | 4 do.   |         |
| 12 8 0                                   | 3 0 0               | 107 3 6                            | .....            | .....            | 230   | ..       | 230     |   |         |
| 10 14 0                                  | .....               | 44 15 2                            | 121 6 1          | 81 15 1          | 1,637   | ..       | 1,637   | 4 July  |         |
| 8 0 0                                    | .....               | 8 0 0                              | 86 7 2           | 122 14 7         | 492   | ..       | 492     |   |         |
| 4 8 0                                    | 6 0 0               | 124 6 2                            | .....            | .....            | ..  | ..       | ..      | 13 June   |         |
| .....                                    | .....               | 26 11 11                           | .....            | .....            | ..  | ..       | ..      |   |         |
| .....                                    | .....               | .....                              | 750 0 9          | 2,080 10 3       | 2,620   | 1,520    | 4,140   |   |         |
| .....                                    | .....               | .....                              | 344 5 1          | 337 11 4         | 150   | ..       | 150     |   |         |
| .....                                    | .....               | .....                              | 4,454 2 10       | .....            | ..  | ..       | ..      |   |         |
| .....                                    | .....               | .....                              | 918 0 4          | 543 12 5         | ..  | ..       | ..      |   |         |
| 659 4 2                                  | 56 13 0             | 5,145 12 5                         | 14,780 12 3      | 7,465 3 11       | 40,226  | 11,910   | 52,136  |   |         |
| 1 0 0                                    | 10 0 0              | 338 13 9                           | 2180 9 6         | 757 12 9         | 2,511   | 2,500    | 5,011   | 6 May   |         |
| .....                                    | .....               | 167 5 4                            |                  |                  | ..  | ..       | ..      | 10 do.  |         |
| .....                                    | .....               | 37 5 9                             | .....            | .....            | 206   | ..       | 206     |   |         |
| 9 0 0                                    | 10 0 0              | 382 8 7                            | 4,322 5 8        | 951 4 7          | 5,643   | 1,186    | 6,829   |   |         |
| .....                                    | .....               | 139 1 5                            | 609 10 6         | .....            | ..  | ..       | ..      |   |         |
| .....                                    | .....               | 114 8 8                            | 306 8 11         | 137 4 8          | 4,054   | ..       | 4,054   | 10 June   |         |
| 1 8 0                                    | .....               | 198 7 8                            | 104 2 6          | 215 7 8          | 649   | ..       | 649     | 13 do.  |         |
| 0 6 0                                    | .....               | 87 15 4                            | 109 0 3          | 85 8 10          | 392   | ..       | 392     |   |         |
| 11 14 0                                  | 20 0 0              | 1,448 2 6                          | 7,632 5 4        | 2,147 6 6        | 13,433  | 3,686    | 17,111  |   |         |





| 1                   | 2                       | 3                  | 4        | 5                       | 6   | 7   | 8               | 9                  |            |
|---------------------|-------------------------|--------------------|----------|-------------------------|---|---|-----------------|--------------------|------------|
| Number.             | Name of Canal.          | Source.            | Talooka. | Entire Length of Canal. | Length Excavated during the Season 1855-56. | The quantity Excavated during the Season 1855-56. | Rate per Rupee. | Cost of Labour.    |            |
|                     |                         |                    |          | Lineal Guz.             | Lineal Guz.                                 | Cubic Guz.  | Cubic Guz.      | Rs. a. p.          |            |
|                     |                         |                    |          | Brought over .          |   | 33,591·6250                                       | .....           | 1,414 4 6          |            |
| 9                   | Churra Gholam Mahomed.  | Indus .. ..        | Goonee.  | 7,000                   | 3,050                                       | 4,720·3750  | 24              | 196 10 10          |            |
| 10                  | Do. do. Shah ..         | Do. .. ..          |          | 1,600                   | 1,600                                       | 1,526·0625  | 24              | 63 9 4             |            |
| 11                  | Pasud .. ..             | Do. .. ..          |          | 2,100                   | 2,100                                       | 1,609·1250  | 24              | 67 0 9             |            |
| 12                  | Thissir Bursad .. ..    | ChurraGhol.Mahomed |          | 1,250                   | 1,150                                       | 708·5625  | 24              | 29 8 4             |            |
| 13                  | Chorewah. . . .         | Do. .. ..          |          | 5,360                   | { 1,200<br>350                              | 727·0625  | 23              | { 31 9 8<br>5 10 6 |            |
| 14                  | Chundun Sydpoor ..      | Foolailee .. ..    |          | 4,500                   |   | 3,800   |                 |                    | 2,741·1250 |
| 15                  | Goomb .. ..             | Do. .. ..          |          | 5,900                   | 3,700                                       | { 420·2500<br>4,261·8125<br>507·3125              | 23              | 231 5 1            |            |
|                     |                         |                    |          |                         |   |   | 2,829·3125      |                    | 20         |
|                     |                         |                    |          |                         |   |   | 2,284·6875      |                    | 13         |
| 16                  | Dodah .. ..             | Goonee .. ..       |          | 5,733                   | 5,733                                       | 1,617·0625  | 23              | 342 0 3            |            |
|                     |                         |                    |          |                         |   | 730   | 26              |                    |            |
|                     |                         |                    |          |                         |   | 25  |                 |                    |            |
| 17                  | Rumguthenar (Lucaut) .. | Ali Bhur .. ..     |          | 5,300                   | 1,300                                       | 657·7500  | 28              | 29 3 2             |            |
| 18                  | Peerwah do. ..          | Ganga .. ..        |          | 1,225                   | 1,125                                       | 1,112·5625  | 23              | 23 7 10            |            |
| 19                  | Rajwah .. ..            | Rumguthenar .. ..  |          | 3,500                   | 2,484                                       | 1,112·5625  | 23              | 34 2 4             |            |
| 20                  | Shahwah Mugraboo ..     | Goonee .. ..       |          | 28,000                  | 7,100                                       | 4,753·1250  | 22              | 538 13 10          |            |
| 21                  | Moobaruckwah .. ..      | Do. .. ..          |          | 12,000                  | 2,750                                       | 2,852·1250  | 23              | 206 10 6           |            |
| 22                  | Juggerahahwah .. ..     | Do. .. ..          |          | 5,000                   | 3,100                                       | 10,112·6250                                       | 21              | 135 13 0           |            |
| 23                  | Shahwah Mushruk ..      | Do. .. ..          |          | 15,300                  | 15,300                                      | 840·6250  | 22              | 458 12 1           |            |
| 24                  | Sherewah . . . .        | Shahwah Mushruk .. |          | 1,800                   | 1,800                                       | 237·4375  | 24              | 35 0 5             |            |
| 25                  | Jamwah (Agree) .. ..    | Ganga .. ..        |          | 19,000                  | 5,100                                       | 2,101·4375  | 22              | 281 0 8            |            |
| 26                  | Do. (Lucaut) .. ..      | Jamwah Agree .. .. |          | 850                     | 850   | 1,753·5625  | 22              | 10 12 8            |            |
| 27                  | Sherewah (Agree) ..     | Ganga .. ..        |          | 9,755                   | 2,100                                       | 7,979·6250  | 21              | 100 1 0            |            |
| 28                  | Rajwah .. ..            | Do. .. ..          |          | 12,646                  | 6,250                                       | 2,587·5000  | 22·7343         | 424 4 3            |            |
|                     |                         |                    |          |                         |   | 7,979·6250  | 23              |                    |            |
| 29                  | Moree .. ..             | Rajwah .. ..       |          | 6,000                   | 3,950                                       | 596·5000  | 25              | 103 8 0            |            |
| 30                  | Summuckie .. ..         | Do. .. ..          |          | 1,450                   | 1,200                                       | 2,144·3750  | 25              | 23 13 8            |            |
| 31                  | Aubadth .. ..           | Do. .. ..          |          | 5,000                   | 3,050                                       | 1,420·6250  | 25              | 85 12 4            |            |
| 32                  | Kakyah .. ..            | Do. .. ..          |          | 6,000                   | 3,200                                       | 1,508·5625  | 25              | 56 13 1            |            |
| 33                  | Bujjar (Agree) .. ..    | Ganga .. ..        |          | 2,340                   | 2,000                                       | 3,199·5000  | 25              | 60 5 5             |            |
| 34                  | Sydah .. ..             | Do. .. ..          |          | 2,750                   | 2,750                                       | 709·3750  | 22              | 145 6 11           |            |
| 35                  | Hakdah .. ..            | Do. .. ..          |          | 1,740                   | 1,250                                       | 4,477·7500  | 28              | 25 5 4             |            |
| 36                  | Sherewah (Galley) ..    | Do. .. ..          |          | 8,200                   | 4,750                                       | 1,239·5000  | 23              | 194 10 11          |            |
| 37                  | Phyrosewah .. ..        | Sherewah Galley .. |          | 2,210                   | 1,650                                       | 341·3750  | 26              | 47 10 8            |            |
| 38                  | Kasia .. ..             | Do. .. ..          |          | 2,150                   | 1,050                                       | 1,522·4375  | 26              | 13 2 0             |            |
| 39                  | Khorewah. . . .         | Ganga .. ..        |          | 6,800                   | 6,800                                       | 8,934·4375  | 22·9140         | 454 14 11          |            |
|                     |                         |                    |          |                         |   |   | 23              |                    |            |
| 40                  | Khanwah .. ..           | Khorewah .. ..     |          | ..                      | ..  | ..  | ..              | 143 9 0            |            |
| 41                  | Manukwah. .. ..         | Ganga .. ..        |          | 7,555                   | 4,000                                       | 3,016·3750  | 22              | 137 1 9            |            |
| 42                  | Punguthenar .. ..       | Do. .. ..          |          | 7,200                   | 3,717                                       | 3,374·3750  | 22              | 107 14 10          |            |
| 43                  | Janear .. ..            | Do. .. ..          |          | 2,150                   | 1,100                                       | 1,119·9375  | 22              | 50 14 6            |            |
| 44                  | Meerwah (new) .. ..     | Moolchund .. ..    |          | 12,000                  | 4,800                                       | 3,806·0625  | 25              | 155 13 6           |            |
| 45                  | Do. .. ..               | Do. .. ..          |          | 12,120                  | 7,050                                       | 3,721·8125  | 27              | 138 3 3            |            |
| Carried forward, .. |                         |                    |          |                         |   | 150,934·8605                                      |                 | 6,723 15·10        |            |



| 10                                       | 11                 | 12                                 | 13               | 14               | 15  |          |         | 16  | 17       |
|--|--------------------|------------------------------------|------------------|------------------|---|----------|---------|---|----------|
| Removing Too-<br>das by Bill<br>Mooktee. | Cutting<br>Jungle. | Total of Columns<br>9, 10, and 11. | Cost in 1854-55. | Cost in 1855-56. | Quantity of Jagheer or<br>Government Land watered<br>by each Canal. |          |         | Date on<br>which the<br>Water en-<br>tered each<br>Canal. | Remarks. |
|  |                    |                                    |                  |                  | Government.   | Jagheer. | Total.  |   |          |
| Rs. a. p.                                | Rs. a. p.          | Rs. a. p.                          | Rs. a. p.        | Rs. a. p.        | Beegas.   | Beegas.  | Beegas. |   |          |
| 11 14 0                                  | 20 0 0             | 1,446 2 6                          | 7,632 5 4        | 2,147 6 6        | 13,455  | 3,686    | 17,141  | 13 June<br>10 do.   |          |
| .. ..                                    | 4 0 0              | 200 10 10                          | 378 1 7          | 331 9 8          | ..  | ..       | ..      |   |          |
| .. ..                                    | .. ..              | 63 9 4                             | 81 11 4          | 62 8 0           | 1,420   | 434      | 1,854   |   |          |
| .. ..                                    | .. ..              | 67 0 9                             | 66 4 8           | 36 5 5           | 258   | ..       | 258     |   |          |
| 0 12 0                                   | .. ..              | 30 4 4                             | 41 12 8          | 45 8 8           | 257   | ..       | 257     |   |          |
| 2 8 0                                    | .. ..              | 39 12 2                            | 17 10 10         | 102 6 6          | 174   | ..       | 174     |   |          |
| 0 12 0                                   | .. ..              | 119 14 9                           | 150 0 2          | 121 1 4          | 955   | ..       | 955     |   |          |
| 0 12 0                                   | .. ..              | 232 1 1                            | 60 12 1          | 316 15 5         | 369   | ..       | 369     |   |          |
| .....                                    | .....              | 342 0 3                            | 409 3 9          | 464 4 3          | 1,580   | ..       | 1,580   |   |          |
| .....                                    | .....              | 29 3 2                             | 100 4 6          | 132 8 3          | 1,114   | ..       | 1,114   |   |          |
| .....                                    | .....              | 23 7 10                            | 40 6 11          | 45 5 3           | 744   | ..       | 744     |   |          |
| .....                                    | .....              | 34 2 4                             | .....            | 42 1 10          | 124   | ..       | 124     |   |          |
| .....                                    | .....              | 538 13 10                          | 3,268 2 1        | 647 8 0          | 3,830   | 2,400    | 6,230   | 29 June   |          |
| .....                                    | .....              | 206 10 6                           | 209 7 11         | 150 6 5          | 3,214   | 1,650    | 4,864   | 9 do.   |          |
| .....                                    | .....              | 135 13 0                           | 380 6 1          | .....            | 400   | 70       | 470     | 8 do.   |          |
| .....                                    | 10 4 0             | 469 0 1                            | 687 13 2         | 1,174 14 3       | 4,584   | 700      | 5,284   | 30 do.  |          |
| .....                                    | .....              | 35 0 5                             | 53 14 11         | 76 0 5           | 2,995   | ..       | 2,995   |   |          |
| 0 8 0                                    | .....              | 281 8 8                            | 561 0 4          | 421 11 0         | 200   | ..       | 200     |   |          |
| .....                                    | .....              | 10 12 8                            | .....            | .....            | 350   | ..       | 350     |   |          |
| .....                                    | .....              | 100 1 0                            | 109 14 4         | 134 7 0          | 1,221   | ..       | 1,221   |   |          |
| .....                                    | 2 10 6             | 426 14 9                           | 224 0 7          | 502 0 4          | 1,034   | ..       | 1,034   | 2 July  |          |
| .....                                    | .....              | 103 8 0                            | 57 4 3           | 109 6 3          | 148   | ..       | 148     |   |          |
| .....                                    | .....              | 23 13 8                            | 21 8 4           | 24 10 11         | 211   | ..       | 211     |   |          |
| .....                                    | .....              | 85 12 4                            | 112 11 0         | 130 15 4         | 291   | ..       | 291     |   |          |
| .....                                    | .....              | 56 13 1                            | 117 13 5         | 95 13 7          | 300   | ..       | 300     |   |          |
| .....                                    | .....              | 60 5 5                             | 41 1 9           | 67 10 3          | 1,300   | ..       | 1,300   |   |          |
| 0 8 0                                    | .....              | 145 14 11                          | 131 2 5          | 307 5 1          | 584   | ..       | 584     |   |          |
| .....                                    | .....              | 25 5 4                             | .....            | 34 12 6          | 100   | ..       | 100     |   |          |
| .....                                    | .....              | 194 10 11                          | 60 3 1           | 599 5 6          | 2,972   | ..       | 2,972   | 3 July  |          |
| .....                                    | .....              | 47 10 8                            | 24 9 4           | 32 13 7          | 345   | 130      | 563     |   |          |
| .....                                    | .....              | 13 2 0                             | 18 7 0           | 49 7 5           | 433   | ..       | 433     |   |          |
| 0 12 0                                   | 4 8 0              | 460 2 11                           | 255 8 0          | 425 11 1         | 189   | ..       | 189     | 3 July  |          |
| .....                                    | .....              | 143 9 0                            | 95 9 10          | 175 13 8         | 346   | ..       | 346     | Do.   |          |
| .....                                    | .....              | 137 1 9                            | 61 2 11          | 186 15 10        | 456   | ..       | 456     |   |          |
| .....                                    | .....              | 107 14 10                          | 183 2 11         | 181 0 8          | ..  | ..       | ..      |   |          |
| .....                                    | .....              | 50 14 6                            | 35 2 0           | 33 14 6          | 1,240   | ..       | 1,240   |   |          |
| .....                                    | .....              | 155 13 6                           | 951 8 8          | 595 0 2          | 402   | 150      | 650     | 23 June   |          |
| .....                                    | .....              | 188 3 3                            | 541 1 4          | 277 3 1          | 450   | ..       | 450     | Do.   |          |
| 19 6 10                                  | 41 6 6             | 6,798 12 4                         | 17,190 10 4      | 48,309 15 11     | 47,945  | 9,220    | 57,065  |   |          |



| 1       | 2                  | 3             | 4        | 5                       | 6   | 7   | 8               | 9                  |
|---------|--------------------|---------------|----------|-------------------------|---|---|-----------------|--------------------|
| Number. | Name of Canal.     | Source.       | Talooka. | Entire Length of Canal. | Length Excavated during the Season 1855-56. | The quantity Excavated during the Season 1855-56. | Rate per Rupee. | Cost of Labour.    |
|         |                    |               |          | Lineal Guz.             | Lineal Guz.                                 | Cubic Guz.  | Cubic Guz.      | Rs. a. p.          |
|         |                    |               |          | Brought over .          |   | 150,831-2605                                      | ..              | 6,723 15 10        |
| 46      | Dittah .. ..       | Moolchund ..  | Goonee.  | 11,500                  | 3,600                                       | 2,576-6250  | 22              | 117 1 9            |
| 47      | Cuboola .. ..      | Nusseerwah .. |          | 3,200                   | 2,900                                       | 1,260-8125  | 26              | 48 7 10            |
| 48      | Moeradwah ..       | Moolchund ..  |          | 1,610                   | 550   | 523-3125  | 26              | 20 2 0             |
| 49      | Meeanah .. ..      | Do. .. ..     |          | 2,532                   | 1,100                                       | 876-5625  | 26              | 33 11 4            |
| 50      | Ramwah .. ..       | Do. .. ..     |          | 5,420                   | 1,500                                       | 1,501-0625  | 26              | 57 11 9            |
| 51      | Dullala .. ..      | Do. .. ..     |          | 2,305                   | 2,305                                       | 2,896-0000  | 26              | 111 6 1            |
| 52      | Mattrah .. ..      | Dullala .. .. |          | 4,000                   | 1,000                                       | 713-7500  | 26              | 28 9 8             |
| 53      | Duddaka .. ..      | Indus .. ..   |          | 15,000                  | 2,750                                       | 2,331-5625  | 26              | 89 10 10           |
| 54      | Bugga Dundee ..    | Do. .. ..     |          | 10,930                  | 5,200                                       | 3,713-7500  | 26              | 113 15 9           |
| 55      | Loondah .. ..      | Moolchund ..  |          | 2,050                   | 1,950                                       | 1,181-7500  | 26              | 57 1 6             |
| 56      | Do. .. ..          | Loondah .. .. |          | 750                     | 750   | 399-8750  | 26              | 15 6 1             |
| 57      | Boothah .. ..      | Bugghar .. .. |          | 3,100                   | 2,300                                       | 1,387-5000  | 26              | 53 5 9             |
| 58      | Chundun Kokur..    | Indus .. ..   |          | 1,984                   | 650   | 431-1250  | 27              | 15 15 5            |
| 59      | Kokurwah .. ..     | Do. .. ..     |          | 9,500                   | 5,650                                       | { 5,054-3750<br>818-1375                          | { 25<br>27      | 232 7 10           |
| 60      | Doogussah .. ..    | Kokurwah ..   |          | 4,020                   | 1,300                                       | 796-2500  | 27              | 29 7 9             |
| 61      | Ganja .. ..        | Foolailee ..  |          | 57,500                  | 4,650                                       | { 5,021-0000<br>3,566-0625                        | { 17<br>16      | 295 2 9<br>223 0 0 |
| 62      | Jamwah .. ..       | Meerwah (new) |          | 2,000                   | 1,000                                       | 304-6250  | 25              | 12 2 11            |
| 63      | Foolailee .. ..    | Indus .. ..   |          | ..                      | ..  | ..  | ..              | 101 7 4            |
|         | Hairan Bund ..     | Do. .. ..     |          | ..                      | ..  | 615-3125  | 22              | 27 15 5            |
|         | Heerdai do. ..     | Do. .. ..     |          | ..                      | ..  | 151-1875  | 20              | 7 8 11             |
|         | Katiar Sluices ..  | Do. .. ..     |          | ..                      | ..  | .....   | ..              | 1,057 13 7         |
|         | Manuckwah, &c ..   | Do. .. ..     |          | ..                      | ..  | .....   | ..              | .. .               |
|         |                    |               |          |                         |   | 188,148-1217                                      |                 | 9,503 12 1         |
| 1       | Gharie .. ..       | Goonee .. ..  | Buddeen. | 36,500                  | 21,658                                      | { 32,636-6875<br>10,254-3125                      | { 31<br>29      | 2,864 1 10         |
| 2       | Sydah (new) ..     | Do. .. ..     |          | 10,440                  | 5,950                                       | 2,032-8125  | 29              | 70 1 6             |
| 3       | Ghar (Lewanee) ..  | Do. .. ..     |          | 7,367                   | 2,408                                       | 3,424-3125  | 24              | 142 10 10          |
| 4       | Dharora .. ..      | Kazia .. ..   |          | 7,000                   | 5,600                                       | 2,073-1875  | 29              | 71 7 9             |
| 5       | Mairabwah .. ..    | Gharie .. ..  |          | 6,650                   | 6,650                                       | 1,226-5625  | 31              | 39 9 0             |
| 6       | Lacan .. ..        | Do. .. ..     |          | 7,200                   | 2,800                                       | 782-8125  | 31              | 25 4 0             |
| 7       | Ullewah .. ..      | Do. .. ..     |          | 7,156                   | 2,400                                       | 887-5000  | 31              | 28 10 1            |
| 8       | Loondah .. ..      | Goonee .. ..  |          | 5,827                   | 5,791                                       | 5,157-1562  | 28              | 184 3 0            |
| 9       | Meerwah .. ..      | Do. .. ..     |          | 29,288                  | 20,100                                      | 27,329-6250                                       | 20              | 1,366 7 7          |
| 10      | Gumshera .. ..     | Do. .. ..     |          | 5,842                   | 5,842                                       | { 3,586-6875<br>2,024-1250                        | { 29<br>36      | 179 14 4           |
| 11      | Bundkee .. ..      | Do. .. ..     |          | 2,726                   | 2,350                                       | 1,939-3125  | 26              | 53 13 11           |
| 12      | Ismaelwah .. ..    | Do. .. ..     |          | 5,560                   | 1,500                                       | 712-5000  | 36              | 19 12 8            |
| 13      | Khanua .. ..       | Gharie .. ..  |          | 3,000                   | 1,850                                       | 932-6250  | 29              | 32 2 6             |
| 14      | Kazia (Sunnada) .. | Goonee .. ..  |          | 1,700                   | 1,700                                       | 262-5000  | 29              | 9 0 10             |
| 15      | Sydah (new) ..     | Gharie .. ..  |          | 3,200                   | 2,900                                       | 396-7500  | 29              | 34 5 10            |
| 16      | Do. (old) .. ..    | Goonee .. ..  |          | ..                      | 2,000                                       | 1,280-2500  | 29              | 42 2 2             |
|         |                    |               |          | Carried forward..       |   | 97,439-7187                                       |                 | 5,165 11 10        |



| 10                                       | 11                 | 12                                 | 13               | 14               | 15  |          |         | 16   | 17       |
|--|--------------------|------------------------------------|------------------|------------------|---|----------|---------|--|----------|
| Removing Too-<br>das by Bill<br>Mooktoo. | Cutting<br>Jungle. | Total of Columns<br>9, 10, and 11. | Cost in 1854-55. | Cost in 1853-54. | Quantity of Jagheer or<br>Government Land watered<br>by each Canal. |          |         | Date on<br>which the<br>Water entered<br>each Canal. | Remarks. |
|  |                    |                                    |                  |                  | Government.   | Jagheer. | Total.  |  |          |
| Rs. a. p.                                | Rs. a. p.          | Rs. a. p.                          | Rs. a. p.        | Rs. a. p.        | Beegas.   | Beegas.  | Beegas. |  |          |
| 18 6 0                                   | 41 6 6             | 6,793 12 4                         | 17,190 5 6       | 10,302 15 11     | 47,845  | 9,220    | 57,065  |  |          |
| .....                                    | .....              | 117 1 9                            | 268 11 9         | 313 11 0         | 352   | ..       | 352     | 20 May   |          |
| .....                                    | .....              | 48 7 10                            | 12 12 4          | 18 15 5          | 243   | ..       | 243     |  |          |
| .....                                    | .....              | 20 2 0                             | 20 10 9          | 29 10 9          | 175   | ..       | 175     |  |          |
| .....                                    | .....              | 33 11 4                            | 29 11 2          | 40 4 8           | 153   | ..       | 153     | 1 July   |          |
| .....                                    | .....              | 57 11 9                            | 206 8 1          | 146 5 1          | 1,157   | 240      | 1,397   | Do.  |          |
| .....                                    | .....              | 111 6 1                            | 55 2 11          | 88 5 10          | 325   | 10       | 335     | Do.  |          |
| .....                                    | .....              | 28 9 8                             | 3 1 11           | 108 15 0         | 300   | ..       | 300     | Do.  |          |
| .....                                    | 2 0 0              | 91 10 10                           | 84 10 2          | 88 5 6           | 224   | ..       | 224     |  |          |
| .....                                    | 4 0 0              | 147 15 9                           | 307 3 4          | 294 9 3          | 138   | ..       | 138     |  |          |
| .....                                    | 10 4 0             | 67 5 6                             | 72 11 1          | 83 13 4          | 2,096   | ..       | 2,096   | 26 June  |          |
| .....                                    | .....              | 15 6 1                             |                  |                  |   |          |         |  |          |
| .....                                    | .....              | 53 5 9                             |                  |                  |   |          |         |  |          |
| .....                                    | .....              | 15 15 5                            | 50 14 9          | 29 4 8           | 225   | ..       | 225     |  |          |
| 5 0 0                                    | .....              | 237 7 10                           | 776 4 2          | 385 6 10         | 2,008   | ..       | 2,008   | 16 June  |          |
| .....                                    | .....              | 29 7 9                             | 68 0 8           | 41 12 1          | 374   | ..       | 374     |  |          |
| } 83 4 2                                 | 182 3 0            | 783 9 11                           | 995 9 0          | 858 14 10        | 5,187   | 2,150    | 7,337   | 15 June  |          |
|  | .....              | 12 2 11                            | 13 10 6          | .....            | 1,361   | 265      | 1,626   |  |          |
| 66 3 5                                   | .....              | 167 10 9                           | *5,749 1 3       | .....            | ..  | ..       | ..      |  |          |
| .....                                    | .....              | 27 15 5                            | .....            | .....            | ..  | ..       | ..      |  |          |
| .....                                    | .....              | 7 8 11                             | .....            | .....            | ..  | ..       | ..      |  |          |
| .....                                    | .....              | 1,057 13 7                         | .....            | .....            | ..  | ..       | ..      |  |          |
| .....                                    | .....              | .....                              | 3,200 6 0        | 3,975 14 0       | ..  | ..       | ..      |  |          |
| 172 13 7                                 | 239 13 6           | 9,916 7 2                          | 29,105 7 4       | 16,807 4 2       | 62,578  | 11,885   | 74,463  |  |          |
| 18 11 6                                  | 63 0 3             | 2,945 13 7                         | 2,526 8 5        | 1,196 15 0       | 2,475   | 1,760    | 4,235   | 14 June  |          |
| .....                                    | .....              | 70 1 6                             | 542 3 6          | 166 14 6         | 248   | ..       | 248     | 26 June  |          |
| .....                                    | .....              | 142 10 10                          | 571 9 6          | 359 15 2         | 809   | 35       | 844     | 14 June  |          |
| .....                                    | .....              | 71 7 9                             | 101 13 8         | 147 12 3         | 1,100   | ..       | 1,100   | 23 June  |          |
| .....                                    | 3 12 0             | 43 5 0                             | 208 2 6          | 105 15 2         | 622   | 20       | 642     | 15 June  |          |
| .....                                    | 2 8 0              | 27 12 0                            | 42 2 2           | 35 10 4          | 1,040   | ..       | 1,040   | Do.  |          |
| .....                                    | 2 8 0              | 31 2 1                             | 222 6 2          | 19 8 3           | 867   | 87       | 954     | Do.  |          |
| .....                                    | .....              | 184 3 0                            | 232 9 9          | 172 4 5          | 345   | 243      | 588     | 1 July   |          |
| 9 12 0                                   | 64 6 11            | 1,440 10 6                         | 1,620 3 0        | 1,302 9 1        | 10,327  | 2,386    | 12,713  | 13 June  |          |
| .....                                    | 27 13 0            | 207 11 4                           | .....            | 206 10 0         | 332   | ..       | 332     | 1 July   |          |
| 0 4 0                                    | .....              | 54 1 11                            | .....            | 33 14 1          | 565   | ..       | 565     |  |          |
| .....                                    | .....              | 19 12 8                            | 126 2 10         | 115 8 8          | 450   | ..       | 450     |  |          |
| .....                                    | .....              | 32 2 6                             | 48 14 10         | 41 7 1           | 134   | ..       | 134     | 23 July  |          |
| .....                                    | .....              | 9 0 10                             | .....            | 18 12 4          | 1,197   | ..       | 1,197   |  |          |
| .....                                    | .....              | 34 5 10                            | 22 1 11          | 42 14 0          | 278   | ..       | 278     | 23 June  |          |
| .....                                    | .....              | 44 2 2                             | .....            | .....            | 458   | ..       | 458     | 15 June  |          |
| 28 11 6                                  | 164 0 2            | 5,358 7 6                          | 6,264 14 3       | 3,976 10 4       | 21,255  | 4,531    | 25,786  |  |          |

\* This amount is for  
all Banks.







| 10                                       | 11                 | 12                                 | 13               | 14               | 15  |          |         | 16  | 17       |
|--|--------------------|------------------------------------|------------------|------------------|---|----------|---------|---|----------|
| Removing Too-<br>das by Bill<br>Mooktee. | Cutting<br>Jungle. | Total of Columns<br>9, 10, and 11. | Cost in 1854-55. | Cost in 1853-54. | Quantity of Jagheer or<br>Government Land watered<br>by each Canal. |          |         | Date on<br>which the<br>Water entered<br>each<br>Canal. | Remarks. |
|  |                    |                                    |                  |                  | Govern-<br>ment.  | Jagheer. | Total.  |   |          |
| Rs. a. p.                                | Rs. a. p.          | Rs. a. p.                          | Rs. a. p.        | Rs. a. p.        | Beegas.   | Beegas.  | Beegas. |   |          |
| 28 11 6                                  | 164 0 2            | 5,358 7 6                          | 6,264 14 3       | 3,976 10 4       | 21,247  | 4,531    | 25,778  | 14 June   |          |
| .....                                    | .....              | 35 2 11                            | 204 11 0         | 124 2 7          | 1,125   | 2,904    | 4,029   |   |          |
| 15 6 7                                   | 113 10 6           | 3,017 9 8                          | 1,983 11 7       | 1,481 9 10       | 17,521  | 1,771    | 19,292  |   |          |
| .....                                    | .....              | 455 1 4                            | 349 12 5         | 466 15 9         | 4,018   | ..       | 4,018   |   |          |
| .....                                    | .....              | 105 6 1                            | 126 4 6          | 12 14 7          | 481   | ..       | 481     |   |          |
| .....                                    | 6 14 9             | 531 10 1                           | 509 8 5          | 902 4 11         | 138   | ..       | 138     |   |          |
| 0 12 0                                   | 12 1 0             | 273 4 9                            | 98 11 0          | 502 15 2         | 2,099   | ..       | 2,099   |   |          |
| .....                                    | .....              | 148 3 4                            | 162 4 0          | 249 5 3          | 782   | ..       | 782     |   |          |
| " .....                                  | .....              | 376 0 4                            | 487 3 3          | 454 7 8          | 5,498   | ..       | 5,498   |   |          |
| .....                                    | .....              | 147 11 11                          | 91 11 11         | 206 2 5          | 1,861   | ..       | 1,861   |   |          |
| .....                                    | .....              | 7 6 11                             | 16 7 6           | 29 14 1          | 600   | ..       | 600     |   |          |
| .....                                    | .....              | 3 12 0                             | 18 8 7           | 28 6 2           | 283   | ..       | 283     |   |          |
| 495 8 11                                 | 268 6 3            | 2,700 13 10                        | .....            | 2,627 10 4       | ..  | ..       | ..      |   |          |
| .....                                    | .....              | 127 12 0                           | 147 6 11         | 216 0 11         | 1,435   | 280      | 1,715   |   |          |
| .....                                    | .....              | .....                              | 2,423 5 2        | 657 12 9         | ..  | ..       | ..      |   |          |
| 540 7 0                                  | 565 0 8            | 13,288 6 8                         | 12,884 8 6       | 11,937 5 2       | 57,088  | 9,486    | 66,574  |   |          |
| 35 14 9                                  | 92 12 9            | 1,735 12 5                         | 5,312 3 8        | 1,540 9 8        | 3,246   | 1,285    | 4,531   | 14 June   |          |
| 15 0 0                                   | 18 1 4             | 353 6 8                            | 393 12 3         | 577 10 6         | 4,077   | ..       | 4,077   | 16 do.  |          |
| .....                                    | 35 0 0             | 71 3 8                             | 469 11 9         | 408 4 1          | 1,483   | ..       | 1,483   | 16 do.  |          |
| .....                                    | .....              | *79 7 9                            | 9 0 0            | .....            | 1,093   | ..       | 1,093   | 16 do.  |          |
| .....                                    | 20 0 0             | 84 7 4                             | 325 8 5          | 371 10 5         | 1,286   | 2,436    | 3,722   | 16 do.  |          |
| 36 0 0                                   | 113 6 6            | 1,292 9 4                          | 1,442 10 5       | 851 7 11         | 2,211   | 2,256    | 4,467   | 14 do.  |          |
| 5 8 0                                    | 68 10 0            | 199 11 0                           | 988 9 2          | 779 2 6          | 4,291   | 663      | 4,954   | 15 do.  |          |
| .....                                    | 71 2 0             | 233 15 9                           | 955 12 3         | 786 15 7         | 2,707   | ..       | 2,707   | 15 do.  |          |
| 9 8 0                                    | 46 10 0            | 209 0 6                            | 595 11 6         | 624 3 9          | 1,500   | ..       | 1,500   | 15 do.  |          |
| 2 0 0                                    | 42 0 0             | 969 13 2                           | 462 9 5          | 321 10 7         | 1,891   | 337      | 2,228   |   |          |
| 0 12 0                                   | .....              | 85 11 0                            | 253 4 10         | 398 1 10         | 400   | ..       | 400     | 14 do.  |          |
| .....                                    | 17 10 0            | 278 14 6                           | 296 8 1          | 320 14 0         | 1,847   | 1,356    | 3,203   | 14 do.  |          |
| 30 0 0                                   | 36 2 0             | 389 14 5                           | 502 10 5         | 357 8 7          | ..  | ..       | ..      | 14 do.  |          |
| .....                                    | .....              | 68 10 0                            | 59 0 0           | 247 11 3         | 739   | ..       | 739     |   |          |
| .....                                    | 21 4 0             | 128 4 6                            | 76 0 6           | 98 8 2           | +591  | 32       | 623     | 16 do.  |          |
| .....                                    | .....              | 83 2 1                             | 84 0 7           | .....            | 1400  | ..       | 400     |   |          |
| .....                                    | .....              | 18 0 11                            | .....            | .....            | 400   | ..       | 400     |   |          |
| 134 10 9                                 | 582 10 7           | 6,282 1 0                          | 12,227 1 3       | 7,684 6 10       | 28,162  | 8,365    | 36,527  |   |          |

\* This Canal is in Meer Mahomed Nissam's Jagheer, and if he takes the produce, he of course should pay the clearance.

The Jagheerdars have paid half the clearance. The total amount expended was Rupees 326-0-0. Ditto three-fourths the amount of ditto. The total amount expended was Rs. 392-8-4.



| 1       | 2                           | 3             | 4               | 5                       | 6   | 7   | 8               | 9               |
|---------|-----------------------------|---------------|-----------------|-------------------------|---|---|-----------------|-----------------|
| Number. | Name of Canal.              | Source.       | Talooka.        | Entire Length of Canal. | Length Excavated during the Season 1855-56. | The quantity Excavated during the Season 1855-56. | Rate per Rupee. | Cost of Labour. |
|         |                             |               |                 | Lineal Guz.             | Lineal Guz.                                 | Cubic Guz.  | Cubic Guz.      | Rs. a. p.       |
|         |                             |               |                 | Brought over..          |   | 120,767-8749                                      | ..              | 5,564 11 8      |
| 18      | Sherewah (Cobree) ..        | Goonee ..     | Bagha-ke-Tanda. | 4,900                   | 4,900                                       | 1,576-5000  | 24              | 65 3 5          |
| 19      | Hyderwah ..                 | Do. ..        |                 | 4,074                   | 4,074                                       | 2,602-9375  | 24              | 108 6 7         |
| 20      | Fuzzoollah ..               | Do. ..        |                 | 4,737½                  | 4,737½                                      | 2,397-0000  | 24              | 99 14 0         |
| 21      | Do. (Chotah) ..             | Fuzzoollah .. |                 | 4,100                   | 2,362                                       | 454-1875  | 24              | 19 14 8         |
| 22      | Khairwah ..                 | Goonee ..     |                 | 3,080                   | 1,550                                       | 1,297-5000  | 24              | 54 0 11         |
| 23      | Sooranna ..                 | Do. ..        |                 | 1,347½                  | 1,347½                                      | 868-2500  | 24              | 36 2 7          |
| 24      | Moolchund ..                | Do. ..        |                 | 26,940                  | 6,444                                       | 8,481-4375  | 20              | 424 1 0         |
| 25      | Gungebhur ..                | Hyderwah ..   |                 | 1,500                   | 1,200                                       | 193-7500  | 24              | 8 1 2           |
| 26      | Goonee ..                   | Foolailee ..  |                 | ..                      | ..  | 7,850-0000  | 16              | 490 9 7         |
| 27      | Khairwah ..                 | Do. ..        |                 | 1,558                   | 1,558                                       | 1,105-3750  | 20              | 55 4 3          |
| 28      | Shahwah ..                  | Do. ..        |                 | ..                      | 1,420                                       | 7,09-6875   | 20              | 35 7 9          |
| 29      | Jamwah ..                   | Do. ..        |                 | ..                      | 1,735                                       | 1,275-3750  | 20              | 63 12 3         |
| 30      | Chundun ..                  | Do. ..        |                 | ..                      | 1,150                                       | 537-5000  | 20              | 26 14 0         |
| 31      | Emamwah ..                  | Do. ..        |                 | ..                      | 2,173                                       | 2,124-7500  | 20              | 106 3 10        |
|         | Buroon and Chan, &c. ..     | Do. ..        |                 | ..                      | ..  | .....   | ..              | .....           |
|         |                             |               |                 |                         |   | 152,242-1249                                      |                 | 7,157 11 8      |
| 1       | Ali Bhur ..                 | Goonee ..     | Mobhut Dhera.   | ..                      | 6,650                                       | 12,890-3125                                       | 17              | 758 4 2         |
| 2       | Shekulkosa ..               | Ali Bhur ..   |                 | ..                      | 1,471                                       | 912-3750  | 24              | 38 0 2          |
| 3       | Vungee ..                   | Do. ..        |                 | ..                      | 2,327                                       | 1,600-7050  | 20              | 79 15 9         |
| 4       | Seguffah ..                 | Do. ..        |                 | ..                      | 2,500                                       | 2,478-8750  | 24              | 103 4 8         |
| 5       | Jooda Yassan ..             | Do. ..        |                 | ..                      | 1,797½                                      | 1,027-1875  | 24              | 42 12 3         |
| 6       | Noorwah ..                  | Foolailee ..  |                 | 18,460                  | 18,260                                      | 3,565-0000  | 20-8007         | 1,207 0 1       |
| 7       | Loondah ..                  | Noorwah ..    |                 | 5,450                   | 5,450                                       | 2,721-3359  | 23              | 118 4 8         |
| 8       | Sind. ..                    | Foolailee ..  |                 | 4,550                   | 3,800                                       | 1,075-0000  | 23              | 46 11 9         |
| 9       | Loondah ..                  | Manukwah ..   |                 | ..                      | 1,200                                       | 467-5625  | 23              | 20 5 2          |
| 10      | Manukwah ..                 | Foolailee ..  |                 | ..                      | 1,700                                       | 1,176-6875  | 21              | 56 0 6          |
| 11      | Baghwah ..                  | Noorwah ..    |                 | ..                      | 3,150                                       | 1,145-3125  | 23              | 49 12 7         |
| 12      | Vidudee ..                  | Loondah ..    |                 | ..                      | 2,500                                       | 414-8750  | 23              | 18 0 4          |
| 13      | Sehora ..                   | Noorwah ..    |                 | 4,550                   | 4,550                                       | 2,196-5000  | 23              | 95 7 11         |
| 14      | Sind ..                     | Do. ..        |                 | 3,800                   | 3,800                                       | 2,023-8125  | 23              | 87 15 10        |
| 15      | Thaib Katiar ..             | Vidudee ..    |                 | ..                      | 850   | 336-2500  | 26              | 12 14 11        |
| 16      | Ghoolam Ali Neeramanee. Do. | Do. ..        |                 | ..                      | 1,550                                       | 817-6875  | 26              | 31 7 2          |
| 17      | Sola Almanee ..             | Manukwah ..   |                 | ..                      | 850   | 755-3705  | 26              | 29 0 10         |
| 18      | Mulle ..                    | Vidudee ..    |                 | ..                      | 1,000                                       | 1,562-2500  | 26              | 60 1 6          |
| 19      | Darsnatha ..                | Vudee ..      |                 | ..                      | 2,100                                       | 893-7500  | 26              | 34 6 0          |
| 20      | Shora Chota ..              | Sherewah ..   |                 | ..                      | 3,200                                       | 1,425-0000  | 26              | 54 12 11        |
| 21      | Oosman ..                   | Do. ..        |                 | ..                      | 700   | 240-6250  | 26              | 9 4 1           |
| 22      | { Kurrendan ..              | { Do. ..      |                 | ..                      | 1,180                                       | 1,182-5000  | 26              | 45 7 5          |
|         | { Gingree ..                |               |                 | ..                      | ..  | ..  | ..              | ..              |
|         |                             |               |                 | Carried forward..       |   | 60,830-1379                                       | ..              | 2,999 6 8       |



| 10                                       | 11                 | 12                                 | 13               | 14               | 15  |          |         | 16   | 17       |
|--|--------------------|------------------------------------|------------------|------------------|---|----------|---------|--|----------|
| Removing Too-<br>das by Bill<br>Mooktee. | Cutting<br>Jungle. | Total of Columns<br>9, 10, and 11. | Cost in 1854-55. | Cost in 1853-54. | Quantity of Jagheer or<br>Government Land watered<br>by each Canal. |          |         | Date on<br>which the<br>Water entered<br>each Canal. | Remarks. |
|  |                    |                                    |                  |                  | Govern-<br>ment.  | Jagheer. | Total.  |  |          |
| Rs. a. p.                                | Rs. a. p.          | Rs. a. p.                          | Rs. a. p.        | Rs. a. p.        | Beegas.   | Beegas.  | Beegas. |  |          |
| 134 10 9                                 | 582 10 7           | 6,282 1 0                          | 12,227 1 3       | 7,684 6 10       | 28,162  | 8,365    | 36,527  |  |          |
| .....                                    | 17 0 0             | 82 3 5                             | 104 15 2         | 140 2 2          | 554   | ..       | 554     |  |          |
| .....                                    | 16 12 9            | 125 3 4                            | 101 12 6         | 111 12 6         | 182   | ..       | 182     |  |          |
| .....                                    | 32 14 5            | 132 12 5                           | 143 7 7          | 211 7 2          | 694   | ..       | 694     |  |          |
| .....                                    | 6 14 5             | 25 13 1                            | 22 12 10         | .....            | 219   | ..       | 219     |  |          |
| .....                                    | 6 3 2              | 60 4 1                             | 58 0 2           | 53 9 9           | 174   | ..       | 174     | 8 July   |          |
| .....                                    | 5 6 0              | 41 8 7                             | 59 4 0           | 34 6 11          | 184   | ..       | 184     |  |          |
| 5 0 0                                    | 100 0 0            | 529 1 0                            | 878 1 1          | 592 3 8          | 9,411   | 3,000    | 12,411  | 14 June  |          |
| .....                                    | 4 8 0              | 12 9 2                             | 15 15 6          | .....            | 200   | ..       | 200     |  |          |
| 147 5 3                                  | 263 8 6            | 901 7 4                            | .....            | 112 7 0          | ..  | ..       | ..      |  |          |
| .....                                    | .....              | 55 4 3                             | .....            | .....            | ..  | ..       | ..      |  |          |
| .....                                    | .....              | 35 7 9                             | .....            | .....            | ..  | ..       | ..      |  |          |
| .....                                    | .....              | 63 12 3                            | .....            | .....            | ..  | ..       | ..      |  |          |
| .....                                    | .....              | 26 14 0                            | .....            | .....            | ..  | ..       | ..      |  |          |
| .....                                    | .....              | 106 3 10                           | .....            | .....            | ..  | ..       | ..      |  |          |
| .....                                    | .....              | .....                              | 163 3 8          | 588 7 5          | ..  | ..       | ..      |  |          |
| 287 0 0                                  | 1,035 13 10        | 8,480 9 6                          | 13,774 9 9       | 9,528 15 5       | 39,780  | 11,365   | 51,145  |  |          |
| 19 11 3                                  | 4 3 0              | 782 2 5                            | 1,591 8 3        | 2,186 15 10      | 1,131   | 559      | 1,690   | 13 June  |          |
| .....                                    | .....              | 38 0 2                             | 48 14 9          | .....            | 300   | ..       | 300     |  |          |
| .....                                    | .....              | 79 15 9                            | 155 2 8          | 357 4 1          | 377   | ..       | 377     |  |          |
| .....                                    | .....              | 103 4 8                            | 105 12 4         | 265 5 1          | 400   | ..       | 400     |  |          |
| .....                                    | .....              | 42 12 3                            | 71 3 10          | .....            | 200   | ..       | 200     |  |          |
| 3 14 0                                   | 6 4 0              | 1,217 2 1                          | 1,891 0 2        | 1,255 5 3        | 3,415   | 3,300    | 6,715   | 11 June  |          |
| .....                                    | 5 7 0              | 123 11 8                           | 169 6 3          | 176 3 4          | 2,062   | ..       | 2,062   | 13 do.   |          |
| 0 3 0                                    | .....              | 46 14 9                            | .....            | .....            | 1,585   | 150      | 1,735   | 13 do.   |          |
| .....                                    | 1 11 0             | 22 0 2                             | .....            | 61 12 5          | 300   | ..       | 300     |  |          |
| 1 8 0                                    | 5 0 0              | 62 8 6                             | 195 14 3         | 355 3 7          | 628   | ..       | 628     | 2 July   |          |
| .....                                    | .....              | 49 12 7                            | .....            | 9 3 10           | 698   | ..       | 698     |  |          |
| .....                                    | .....              | 18 0 4                             | 42 2 4           | 151 13 3         | 240   | ..       | 240     |  |          |
| 0 12 0                                   | 2 2 0              | 98 5 11                            | 158 12 1         | 89 13 0          | 1,135   | ..       | 1,135   | 13 July  |          |
| 1 0 0                                    | 2 7 0              | 91 6 10                            | 101 5 3          | 194 10 5         | 300   | ..       | 300     |  |          |
| .....                                    | .....              | 12 14 11                           | .....            | .....            | 80  | ..       | 80      |  |          |
| .....                                    | .....              | 31 7 2                             | .....            | .....            | 101   | ..       | 101     |  |          |
| .....                                    | .....              | 29 0 10                            | .....            | .....            | 206   | ..       | 206     |  |          |
| .....                                    | .....              | 60 1 6                             | 38 12 3          | 57 12 10         | 170   | ..       | 170     |  |          |
| .....                                    | .....              | 34 6 0                             | .....            | 52 14 5          | 155   | ..       | 155     |  |          |
| .....                                    | .....              | 54 12 11                           | 23 6 11          | 51 5 5           | 240   | ..       | 240     |  |          |
| .....                                    | .....              | 9 4 1                              | .....            | .....            | 75  | ..       | 75      |  |          |
| .....                                    | .....              | 45 7 5                             | .....            | 38 10 5          | 313   | ..       | 313     |  |          |
| 27 0 3                                   | 27 2 0             | 3,053 8 11                         | 4,593 5 4        | 5,304 5 2        | 14,111  | 4,009    | 18,120  |  |          |

These Canals are in  
Nusseer Khan's  
Jagheer, and if he  
takes the produce,  
he should pay for  
the clearance.





| 1       | 2                           | 3                  | 4             | 5                       | 6   | 7   | 8               | 9               |  |
|---------|-----------------------------|--------------------|---------------|-------------------------|---|---|-----------------|-----------------|--|
| Number. | Name of Canal.              | Source.            | Talooka.      | Entire Length of Canal. | Length Excavated during the Season 1855-56. | The quantity Excavated during the Season 1855-56. | Rate per Rupee. | Cost of Labour. |  |
|         |                             |                    |               | Lineal Guz.             | Lineal Guz.                                 | Cubic Guz.  | Cubic Guz.      | Rs. a. p.       |  |
|         |                             |                    |               | Brought over..          |   | 60,830-1379                                       | ..              | 2,999 6 8       |  |
| 23      | { Udraman .. ..             | { Sherewah.. ..    | Mohbut Dhera. | ..                      | 390   | 385-0000  | 26              | 14 12 11        |  |
|         | { Inghooroo .. ..           |                    |               | ..                      |   |   |                 |                 |  |
| 24      | Rajah Loondah .. ..         | Do. .. ..          |               | ..                      | 890   | 264-0000  | 26              | 10 2 6          |  |
| 25      | Jooma Dubdea .. ..          | Do. .. ..          |               | ..                      | 1,080                                       | 593-7500  | 26              | 22 13 5         |  |
| 26      | Ulla Bux Lugharee .. ..     | Do. .. ..          |               | ..                      | 900   | 525-0000  | 26              | 20 3 2          |  |
| 27      | Dohal Dass .. ..            | Do. .. ..          |               | ..                      | 450   | 322-5000  | 26              | 12 6 5          |  |
| 28      | Peerwah. .. ..              | Goonee .. ..       |               | ..                      | 6,250                                       | 6,541-1250  | 19              | 344 4 6         |  |
| 29      | Chowguzza .. ..             | Peerwah .. ..      |               | ..                      | 3,150                                       | 2,242-3750  | 26              | 86 3 11         |  |
| 30      | Noorwah.. .. ..             | Do. .. ..          |               | ..                      | 1,608                                       | 479-2500  | 26              | 18 6 4          |  |
| 31      | { Yarroo .. ..              | { Do. .. ..        |               | ..                      | 1,200                                       | 779-3760  | 26              | 29 15 7         |  |
|         | { Mungrea .. ..             |                    |               | ..                      |   |   |                 |                 |  |
| 32      | Gaece Dustah .. ..          | Do. .. ..          |               | ..                      | 1,378                                       | 1,560-8750  | 26              | 60 5 6          |  |
| 33      | Hameed Shah .. ..           | Videe .. ..        |               | ..                      | ..  | 465-6250  | 26              | 17 14 9         |  |
| 34      | Gahie Chota .. ..           | Gaece Dustah .. .. |               | ..                      | 296   | 102-5000  | 26              | 6 4 0           |  |
| 35      | { Joodah Halla .. ..        | { Peerwah .. ..    |               | ..                      | 1,373                                       | 1,117-0000  | 26              | 42 15 1         |  |
|         | { Do. Pootah.. ..           |                    |               | ..                      |   |   |                 |                 |  |
| 36      | Jooda (Chota) .. ..         | Joodah Halla .. .. |               | ..                      | 306}  | 383-1250  | 26              | 14 11 9         |  |
| 37      | Pathur .. ..                | Peerwah .. ..      |               | ..                      | 1,350                                       | 1,666-2500  | 26              | 69 6 10         |  |
| 38      | Emamwah, small.. ..         | Goonee .. ..       |               | ..                      | 10,875                                      | 31,335-3750                                       | 20              | 1,566 12 3      |  |
| 39      | Bawuth Lugharee .. ..       | Emamwah .. ..      |               | ..                      | 2,470                                       | 1,173-1875  | 26              | 45 2 0          |  |
| 40      | Reim .. ..                  | Do. .. ..          |               | ..                      | 2,055                                       | 2,048-8750  | 26              | 78 12 10        |  |
| 41      | Pooljance .. ..             | Do. .. ..          |               | ..                      | 1,365                                       | 2,140-9375  | 26              | 82 5 6          |  |
| 42      | Chundun .. ..               | Goonee .. ..       |               | ..                      | 1,750                                       | 1,069-1875  | 29              | 36 13 10        |  |
| 43      | Mirah .. ..                 | Do. .. ..          |               | ..                      | 3,073                                       | 1,314-6250  | 27              | 48 11 0         |  |
| 44      | Bahmullee .. ..             | Do. .. ..          |               | ..                      | 1,000                                       | 932-1250  | 29              | 32 2 3          |  |
| 45      | Khannan .. ..               | Do. .. ..          |               | ..                      | 1,450                                       | 797-6250  | 34              | 23 7 4          |  |
| 46      | Sherewah .. ..              | Do. .. ..          |               | ..                      | 5,900                                       | 7,792-0625  | 26              | 299 11 0        |  |
| 47      | Khanwah .. ..               | Do. .. ..          |               | ..                      | 2,650                                       | 3,320-2500  | 26              | 127 11 2        |  |
| 48      | Khairawah .. ..             | Emamwah .. ..      |               | ..                      | 2,250                                       | 1,180-8125  | 26              | 45 6 8          |  |
| 49      | Redor .. ..                 | Sherewah .. ..     |               | ..                      | 510   | 503-6875  | 26              | 19 5 11         |  |
| 50      | Gharrie .. ..               | Do. .. ..          |               | ..                      | 4,200                                       | 1,936-5625  | 26              | 74 7 8          |  |
| 51      | Khairie .. ..               | Pittah Dorah .. .. |               | ..                      | 422   | 478-3750  | 26              | 18 6 5          |  |
| 52      | Khanwah .. ..               | Sherewah .. ..     |               | ..                      | 1,898                                       | 846-7500  | 26              | 32 9 1          |  |
| 53      | Kirsallee .. ..             | Do. .. ..          |               | ..                      | 2,150                                       | 804-0625  | 26              | 30 14 9         |  |
| 54      | Vurriel Halla (Potah) .. .. | Do. .. ..          |               | ..                      | 1,300                                       | 1,391-3125  | 26              | 53 8 2          |  |
|         | Bagear and others .. ..     | .....              |               | ..                      | ..  | .....   | ..              | .....           |  |
|         |                             |                    |               |                         |   | 137,323-7004                                      |                 | 6,366 9 2       |  |
|         |                             |                    |               |                         |   | 1,531,801-1678                                    |                 | 76,075 4 6      |  |



| 10                                       | 11                 | 12                                 | 13               | 14               | 15  |         |         | 16  | 17       |
|--|--------------------|------------------------------------|------------------|------------------|---|---------|---------|---|----------|
| Removing Too-<br>das by Bill<br>Mooktee. | Cutting<br>Jungle. | Total of Columns<br>9, 10, and 11. | Cost in 1854-55. | Cost in 1853-54. | Quantity of Jagheer or<br>Government Land watered<br>by each Canal. |         |         | Date on<br>which the<br>Water en-<br>tered each<br>Canal. | Remarks. |
| Rs. a. p.                                | Rs. a. p.          | Rs. a. p.                          | Rs. a. p.        | Rs. a. p.        | Beegas.   | Beegas. | Beegas. |   |          |
| 27 0                                     | 27 2 0             | 3,053 8 11                         | 4,593 5 4        | 5,304 5 2        | 14,111  | 4,009   | 18,120  |   |          |
| .....                                    | .....              | 14 12 11                           | .....            | 31 13 9          | 112   | ..      | 112     |   |          |
| .....                                    | .....              | 10 2 6                             | .....            | .....            | 90  | ..      | 90      |   |          |
| .....                                    | .....              | 22 13 5                            | .....            | .....            | 192   | ..      | 192     |   |          |
| .....                                    | .....              | 20 3 2                             | .....            | 21 13 9          | 284   | ..      | 284     |   |          |
| .....                                    | .....              | 12 6 5                             | .....            | 52 5 6           | 80  | ..      | 80      |   |          |
| 23 12 0                                  | 11 9 0             | 379 9 6                            | 2,307 6 8        | 1,705 12 8       | 4,534   | 957     | 5,491   | 12 June   |          |
| .....                                    | .....              | 86 3 11                            | .....            | .....            | 500   | ..      | 500     |   |          |
| .....                                    | .....              | 18 6 4                             | 123 6 8          | .....            | 201   | ..      | 201     |   |          |
| .....                                    | .....              | 29 15 7                            | .....            | .....            | 231   | ..      | 231     |   |          |
| .....                                    | .....              | 60 5 6                             | 87 9 8           | 151 9 10         | 345   | ..      | 345     |   |          |
| .....                                    | .....              | 17 14 9                            | .....            | .....            | 98  | ..      | 98      |   |          |
| .....                                    | .....              | 6 4 0                              | .....            | .....            | 121   | ..      | 121     |   |          |
| .....                                    | .....              | 42 15 1                            | 109 9 3          | .....            | 372   | ..      | 372     |   |          |
| .....                                    | .....              | 14 11 9                            | .....            | .....            | 208   | ..      | 208     |   |          |
| .....                                    | .....              | 69 6 10                            | 58 15 3          | .....            | 100   | ..      | 100     |   |          |
| 50 5 6                                   | 44 12 2            | 1,661 13 11                        | 1,791 4 10       | 2,596 15 3       | 10,436  | 5,123   | 15,559  | 12 June   |          |
| .....                                    | .....              | 45 2 0                             | 51 15 8          | .....            | 156   | 100     | 256     |   |          |
| .....                                    | .....              | 78 12 10                           | 83 8 1           | 190 6 1          | ..  | ..      | ..      |   |          |
| .....                                    | .....              | 82 5 6                             | 18 0 5           | .....            | 210   | 50      | 260     |   |          |
| 0 4 0                                    | 1 7 0              | 38 8 10                            | 94 1 10          | 163 9 5          | 406   | ..      | 406     |   |          |
| .....                                    | .....              | 48 11 0                            | 113 1 6          | 196 2 7          | 693   | 20      | 713     |   |          |
| 0 8 0                                    | .....              | 32 10 3                            | 63 9 7           | 151 1 1          | 661   | ..      | 661     |   |          |
| 1 8 0                                    | 3 0 0              | 27 15 4                            | .....            | .....            | 1,000   | ..      | 1,000   |   |          |
| 38 12 0                                  | 2 0 0              | 340 7 0                            | 272 8 5          | 261 15 0         | 1,563   | ..      | 1,563   |   |          |
| 5 7 4                                    | 13 2 0             | 146 4 6                            | 106 15 2         | 220 5 5          | 400   | ..      | 400     |   |          |
| .....                                    | .....              | 45 6 8                             | 42 6 11          | 29 9 8           | 200   | ..      | 200     |   |          |
| .....                                    | .....              | 19 5 11                            | 61 9 2           | 61 2 6           | 250   | ..      | 250     |   |          |
| .....                                    | .....              | 74 7 8                             | 68 15 11         | 34 4 6           | 340   | ..      | 340     |   |          |
| .....                                    | .....              | 18 6 5                             | .....            | 42 3 2           | 172   | ..      | 172     |   |          |
| .....                                    | .....              | 32 9 1                             | 51 12 5          | 32 3 5           | 700   | ..      | 700     |   |          |
| .....                                    | .....              | 30 14 9                            | 60 11 3          | 54 11 9          | 1,100   | ..      | 1,100   |   |          |
| .....                                    | .....              | 53 8 2                             | 37 5 6           | 37 1 0           | 628   | ..      | 628     |   |          |
| .....                                    | .....              | .....                              | 427 3 10         | 19 0 4           | ..  | ..      | ..      |   |          |
| 147 8 1                                  | 103 0 2            | 6,637 2 5                          | 10,627 8 6       | 13,358 7 10      | 40,494  | 10,259  | 50,753  |   |          |
| 2,958 0 2                                | 2,493 12 11        | 71,527 1 7                         | 76,743 13 7      | 51,632 0 7       | 438,492   | 104,105 | 542,597 |   |          |

(Signed) J. BEATTY,  
Assistant Collector for Canals.



## Abstract.

| Deputy Collectorate.  | Total Quantity<br>of Work Re-<br>vised, 1855-56. | Cost of Labour,<br>Removing Toodas<br>&c. by Bill Mooktee,<br>and Cutting Jungle. |       | Cost of Bunds. |       | Cost of<br>Superintendence<br>including Fixed<br>Establishment. |       | Total Cost in<br>1855-56. |       | Total Cost in<br>1854-55. |       | Total Cost in<br>1853-54. |       | Remarks.  |
|---|--|---|-------|----------------|-------|---|-------|---------------------------|-------|---------------------------|-------|---------------------------|-------|---|
|   |  | Rs.   | a. p. | Rs.            | a. p. | Rs.   | a. p. | Rs.                       | a. p. | Rs.                       | a. p. | Rs.                       | a. p. |   |
| Nowahera.....   | Cubic Guz.                                       | 153,196   | 8750  | 14,894         | 1 4   | 903   | 13 9  | 2,037                     | 2 4   | 17,835                    | 1 3   | 8,186                     | 15 7  | Nowahera not included in<br>foregoing Statement.  |
|   | 333,074-5080                                     | 14,450  | 11 6  | 1,154          | 1 5   | 5,059   | 8 6   | 20,694                    | 5 5   | 20,967                    | 11 8  | 15,421                    | 4 8   |   |
| Bunds ....  | 12,661-6247                                      | 5,027   | 1 7   | .....          | ..... | 2,353   | 3 6   | 7,380                     | 5 1   | 6,160                     | 8 11  | 4,765                     | 6 7   | Exclusive of Establish-<br>ment which is not<br>shown in foregoing<br>Statement.  |
|   | 67,328-8255                                      | 12,542  | 9 4   | .....          | ..... | 5,066   | 1 2   | 17,608                    | 10 6  | 28,346                    | 0 1   | 20,709                    | 13 10 |   |
| Hydrabad.....   | 263,657-5713                                     | 37,229  | 3 10  | 1,093          | 5 11  | 8,154   | 3 8   | 46,476                    | 13 5  | 66,392                    | 2 1   | 51,632                    | 0 7   | Previous to the trans-<br>fer the Shah Bunde<br>of the District of Khar-<br>choe, the fixed amount<br>grant for Canal Clear-<br>ance in the Hydra-<br>bad Collectorate was<br>1,80,000 Rupees; since<br>that the same has been<br>transferred to the Dis-<br>trict has been annexed.<br>Assuming the above<br>grant to remain unal-<br>tered by these changes,<br>the saving in present<br>year would amount to<br>Rs. 62,685.] |
| Meerpoor.....   | 701,115-2624                                     | 84,173  | 11 7  | 3,151          | 5 1   | 22,670  | 3 2   | 1,09,995                  | 3 10  | 1,37,664                  | 5 10  | 1,00,715                  | 9 3   |   |
| Mahomed-ka-Tanda<br>Bunds .....   | 166-5000   |   |       |                |       |   |       |                           |       |                           |       |                           |       |   |
|   | 1,531,801-1678                                   |   |       |                |       |   |       |                           |       |                           |       |                           |       |   |
| Probable expenditure on permanent Estab-<br>lishment from 1st August 1855 to the<br>31st of October 1855..... |  |   |       |                |       |   |       |                           |       |                           |       |                           |       |   |
| Extra incidental expenses (see Collector's<br>Accounts) .....   |  |   |       |                |       |   |       |                           |       |                           |       |                           |       |   |
| Probable cost of maintaining Bunds during<br>inundation .....   |  |   |       |                |       |   |       |                           |       |                           |       |                           |       |   |
| Grand Total.....  |  |   |       |                |       |   |       | 6,000                     | 0 0   |                           |       |                           |       |   |
|   |  |   |       |                |       |   |       | 319                       | 13 10 |                           |       |                           |       |   |
|   |  |   |       |                |       |   |       | 1,000                     | 0 0   |                           |       |                           |       |   |
|   |  |   |       |                |       |   |       | 1,17,315                  | 1 8   |                           |       |                           |       |   |

(Signed) J. BEATTY,  
Assistant Collector for Canals.

(True copy)  
LEWIS PELLY,  
Acting Assistant Commissioner.



## A GLOSSARY OF LOCAL AND TECHNICAL TERMS

*Which occur in Correspondence relative to the Canal Clearances in the Hyderabad Collectorate during 1854-55.*

*Toodah*.—An obstruction formed in the bed of a canal or water-course by the accumulation of mud or silt round a fallen tree, broken branch, grass, &c.

*Passce*.—The deposit which takes place on the salient angle of curves in canals or water-courses, and generally obstructions formed, as above shown, on the side of canals.

*Bund*.—An artificial embankment; a dam.

*Kur*.—An embanked side to a canal or water-course; a small field bund.

*Dhund*.—A pond, lake, tank, swamp.

*Dhorah*.—A deserted river-bed; the bed of a rain torrent.

*Wahoor*.—A branch running from a river and emptying itself into the same river again at a lower point.

*Koomb*.—A deep hole in a river-bed where water lies during the dry season.

*Different names by which Canals and Water-courses are known.*

*Wah*.—A large canal.

*Kurriah*.—A small canal.

*Kussi*.—A small Kurriah.

*Goojorkoor*.—A small cut for wheels, branching from a Kurriah or Wah, and generally not more than a spade's breadth however deep.

*Chur*.—A natural escape for any body of water

*Vahee*.—A small feeder for rice lands.

*Ad*.—A raised water-course.

*Resolution of Government, dated the 10th May 1856.*

The proposed increase of four Canal Surveyors, two for the Hyderabad and two for the Kurrachee Collectorate, on salaries of Rupees (150) one hundred and fifty each, with the tentage and batta enjoyed by the present Surveyors, is sanctioned, subject to the confirmation of the Government of India, to whom the whole of this correspondence should be submitted for information, and as a most useful record.

2. The correspondence should, in the first place, be printed as a Government Selection, and lithographed copies of the accompanying Maps made.

3. Mr. Beatty, and the Surveyors whose efficiency he has brought to notice, should be informed that they have merited the approbation of Government.

4. The delay in the transport of the Levels alluded to in paragraph 9 of Mr. Beatty's Report No. 278, dated 1st August 1855, has already formed the subject of separate inquiry and correspondence, and the accidents which occasioned it have been satisfactorily explained by Major Pope, late Acting Commissary General.

The above Resolution was communicated to the Acting Commissioner in Sind, and the Superintending Engineer in that Province, under date 22nd May 1856.



**SELECTIONS FROM THE RECORDS OF THE BOMBAY  
GOVERNMENT.**

**No. XXXIII.—NEW SERIES.**

---

**PAPERS RELATIVE TO A PROJECT**

**FOR**

**WET AND DRY DOCKS**

**IN THE**

**HARBOUR OF BOMBAY.**



**Bombay:**

**PRINTED FOR GOVERNMENT**

**AT THE**

**BOMBAY EDUCATION SOCIETY'S PRESS.**

---

**1856.**



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# PROJECT FOR WET AND DRY DOCKS.

No. 789 OF 1854.

FINANCIAL DEPARTMENT  
(*Railway Branch*).

From Colonel C. WADDINGTON, C.B.,

Chief Engineer,

To H. E. GOLDSMID, Esq.,

Offg. Chief Secretary to Government.

SIR,—Referring to my letter No. 276, of the 21st April last, and to the resolution of Government thereupon, No. 2831, of the 10th June, I have now the honour to submit with this letter the plan which I propose for the distribution of the space to be recovered from the sea at Moody Bay.

2. The objects proposed in the recovery of that ground were to obtain an ample and convenient terminus for the railway, and room for a new custom-house, with bonded warehouses, tide-basins, and other useful accommodation. The establishment of wet docks for the reception of ships was not then contemplated.

3. Agreeably to the instructions of Government, having acquainted myself with the views of the Commissioner of Customs, and of the Superintending Engineer Railway Department, and having decided on the necessary modifications of the adjoining fortifications, and the defences which would be required in addition, for the protection of the new ground, I was enabled to give directions to Captain Tremeneere, according to which he matured a plan for the occupation of the ground. That officer had previously made the necessary preliminary surveys, and collected much information connected with the proposed works. He had also commenced detailed

plans for the custom-house and other buildings, in which I regret to say he was interrupted by sickness.

4. In the mean time, a project for the construction of wet docks by a Company of merchants was submitted to Government by Mr. Heycock, and I was informed that it was thought very desirable to combine this project with the arrangements for the custom-house at Boree Bunder. My own opinion as to the great advantages of wet docks (though not as to the agency to be employed in constructing them) quite coincided with the views thus communicated to me, but there was considerable difficulty in effecting a combination of the two projects,—viz. the enclosure of the space at Boree Bunder for custom-house purposes, and the formation of wet docks to the north of Boree Bunder.

5. Mr. Young, with whom I consulted, was of opinion that if wet docks were formed capable of receiving all the square-rigged vessels which frequent this port, it would be important to place the custom-house in their immediate vicinity. Now Mr. Heycock's scheme is to construct docks between Boree Bunder and the Carnac Bunder, and their nearest point to the new custom-house would have been half a mile distant.

6. My objections as Chief Engineer to removing the custom-house to Boree Bunder are, of course, insuperable so long as the present fortifications of Bombay shall be retained, and no building of durable construction could be permitted on the esplanade of Fort George, and so close to it. It seemed to me, moreover, most desirable that the custom-house should be embraced within the defences, and in a more central position as regarded the mercantile population of the Fort.

7. There were other objections to Mr. Heycock's plan of docks, which would occupy the whole shore from Boree Bunder to Carnac Bunder. The difficulty of finding any other available spot for a slaughter-house would be very great, and the Native regiments would be deprived of their necessary accommodation. The advantages of the spot selected by the merchants are, that the bottom, or portions of it, being moorum, are thought to be favourable for foundations, and that the position is not exposed. On the other hand there would be difficulty in obtaining sufficient depth of water for the approach of ships, to judge by the soundings.

8. In the latter particular, the site of Moody Bay would have the



advantage, as there is comparatively deep water near its southern extremity, but the excavation of docks to the requisite depth, and the laying of the foundations of quays, which must be water-tight, would entail, I fear, great expense and difficulty, the bottom being mud, with rock below.

9. However, there is little doubt that the work might be effected, and on a careful consideration of all the above-stated reasons for and against the formation of wet docks to the north of Boree Bunder, I have designed the accompanying plan, wherein two wet docks, one for imports the other for exports, are comprised in the enclosure at Moody Bay, each capable of accommodating alongside of the wharves from eleven to thirteen square-rigged vessels of moderate size. There is, moreover, a tide-basin for the reception of country craft.

10. The ground allotted for the railway (more than  $10\frac{1}{2}$  acres) has been admitted by the Superintendent to be sufficient for their requirements; but having, since my receipt of Major Crawford's assent, arranged to increase the width of their ground from east to west, I have proportionally, by a length of 40 feet, encroached on the south boundary, which I first proposed to assign to them. I do not expect that any inconvenience will arise from this change, or that any objection will be made to it.

I have the honour to be, &c.

(Signed) C. WADDINGTON, Colonel,  
Chief Engineer.

*Bombay, Chief Engineer's Office, 31st October 1854.*

(True copy)

(Signed) C. WADDINGTON, Colonel,  
Chief Engineer.

To W. HART, Esq.,

Secretary to Government, General Department.

*Bombay, 15th March 1855.*

SIR,—I have to request that you will lay the following application before the Governor:—

That the Government will please to grant to a Dock Company,

when formed, such ground as the said Company may reclaim from the sea, for the purpose of forming wet and dry docks, extending along the shore from the Carnac Bunder to Fort George, with the privilege of making a bunder or quay along the shore for the use of the docks.

With this is a plan of the proposed wet docks. The plan for the dry docks is not yet prepared.

I am

Your most obedient Servant,

(Signed) EDWIN HEYCOCK.

*Resolution of Government, dated 17th March 1855.*

RESOLVED.—That Mr. Heycock's proposition of the 15th instant, and accompanying plans, be, with the Chief Engineer's letter No. 789, dated 31st October 1854, and its accompaniment, referred for the opinion and report of a Committee, who shall be requested to take into their consideration these plans, and any others which may be brought before them, with a view to determine the locality which it will be most proper for Government to offer to any Company who may undertake to construct the projected docks.

2. The considerations which, on a *prima facie* view of this question, seem most to affect it, are the availability or otherwise of any place adapted in an engineering point of view for their construction; the convenience of merchants, the public, and Government, with respect to the proximity of such place to the custom-house; the extent to which the defences of the fort and harbour may be affected; and the extent to which they may affect the railway approach to Bombay.

3. As the several interests to be taken into consideration by the Committee are numerous, and as Government are desirous that they should, as far as possible, be represented, the Committee must necessarily be a large one. Government resolve that the Chamber of Commerce be invited to select two of their body willing to associate themselves with the following gentlemen, who shall be requested to form a Committee for the above purpose:—

Major General Waddington, Chief Engineer of Public Works.

E. Heycock, Esq.

Commander Daniell, Master Attendant and Inspector of the Port.  
R. Strong, Esq.  
R. Spooner, Esq., Acting Commissioner of Customs.  
J. J. Berkley, Esq., and  
Major Estridge, Executive Engineer, Belgaum (at present at  
Bombay), who will also act as Secretary to the Committee.

No. 94 OF 1855.

PUBLIC WORKS DEPARTMENT.

To Major General C. WADDINGTON,  
Chief Engineer of Public Works.  
E. HEYCOCK, Esq.  
Commander DANIELL,  
Master Attendant and Inspector of the Port.  
R. STRONG, Esq.  
R. SPOONER, Esq.,  
Acting Commissioner of Customs.  
J. J. BERKLEY, Esq.  
Major ESTRIDGE,  
Executive Engineer, Belgaum (at present at Bombay).

GENTLEMEN,—I am directed to forward to you a copy of the  
Letter from E. Heycock, papers noted in the margin, regarding the  
Esq., dated 15th March construction of wet and dry docks in Bom-  
1855, with plan. bay, and to convey to you the request of  
Letter from the Chief En- the Right Honorable the Governor in Coun-  
gineer, No. 789, dated 31st cil that you will be so good as to form  
October 1854, with plans. yourselves into a Committee for the purpose  
Resolution of Government, stated in the Government resolution dated the 17th March 1855.  
dated 17th March 1855.

2. With reference to paragraph 3 of the resolution, I am desired  
to intimate that the Chamber of Commerce have been invited to  
select two of their body, in addition to Messrs. Strong and Heycock,  
who may be willing to associate themselves with you as members of  
the Committee now appointed.

I have the honour to be, &c.

(Signed) W. HART,  
Secretary to Government.

*Bombay Castle, 21st March 1855.*

No. 95 of 1855.

TO THE SECRETARY TO THE CHAMBER OF COMMERCE.

Major General C. Waddington, Chief Engineer of Public Works.

E. Heycock, Esq.

Commander Daniel, Master Attendant and Inspector of the Port.

R. Strong, Esq.

R. Spooner, Esq., Acting Commissioner of Customs.

J. J. Berkley, Esq.

Major Estridge, Executive Engineer, Belgaum (at present in Bombay).

SIR,—In transmitting to you the accompanying copy of a letter this day addressed to the gentlemen named in the margin, and of the documents therein referred to, I am directed to convey to the Chamber the request of the Right Honorable the Governor in Council that they will be so good as to select two of their body who may be willing to become members of the Committee appointed by Government.

I have the honour to be, &c.

(Signed) W. HART,  
Secretary to Government.

*Bombay Castle, 21st March 1855.*

No. 28 of 1855.

TO W. HART, Esq.,

Secretary to Government, Bombay.

SIR,—I have the honour, by direction of the Committee of the Chamber of Commerce, to acknowledge receipt of your letter No. 95 of 1855, in the Public Works Department, dated the 21st instant, with papers attached, relating to a purpose of forming wet and dry docks in the harbour of Bombay.

In compliance with the request which the Right Honorable the Governor in Council has done them the honour to make, the Chamber beg leave to nominate Mr. John Parsons, of Messrs. Cardwell, Parsons, and Co., and Mr. John Ritchie, Agent for the P. and O. Company in Bombay, two of their members, to deliberate with a Committee, of which the other members have been named by Government, on any plans that may be laid before them, “with a view to determine the locality which it will be most proper for Government to

offer to any Company who may undertake to construct the projected docks.”

I have the honour to be, &c.

(Signed) JOHN CONNOR,  
Secretary.

*Bombay, Chamber of Commerce, 28th March 1855.*

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*Resolution of Government, dated 31st March, on the foregoing Letter from the Secretary to the Chamber of Commerce.*

The Chief Engineer to be informed of the Chamber's choice of these gentlemen, and requested to undertake the organisation of the Committee as its President.

[The above resolution was communicated to the Chief Engineer of Public Works under date 3rd April 1855, No. 165.]

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No. 2 OF 1855.

PUBLIC WORKS DEPARTMENT.

TO W. HART, Esq.,

Secretary to Government.

SIR,—I have the honour to request you to lay before the Right Honorable the Governor in Council the following extract of proceedings of the Committee appointed to consider the question of wet and dry docks, viz :—

“*Resolution of Committee.*—That the Committee agree with Mr. Berkley as to the want of precise information on the following points, as enumerated in his memorandum,—

“3. The facilities or difficulties which each site presents for the construction of the proposed docks.

“*Resolution of Committee.*—The acquisition of correct information on these points can only be made by a careful examination of the ground by probing or boring ; and as this will involve expense, Government should be addressed to sanction that expenditure, and authorise some qualified Engineer to conduct the required experiments.”

“4. An approximate estimate of the cost of the proposed docks, and the period that would probably be requisite for constructing them.

“Mr. Heycock will furnish the Committee with an approximate estimate for the execution of his project. Government to be addressed, with a request that they will allow some qualified Engineer to prepare estimates for the docks at the other two sites.”

2. Three sites have been suggested to the Committee as appropriate for docks, viz. Boree Bunder, or Mr. Heycock's site; Moody Bay, proposed by Major General Waddington; and the space between Bummelow Island, on Colaba, and the Apollo Pier, suggested by some members of the Committee; and it will be seen from the above that the Committee, previously to their being able to arrive at a satisfactory decision as to the best site for docks, require information which cannot be obtained without the assistance of a qualified Engineer. I have the honour to request, in the name of the Committee, that Government will be pleased, in accordance with their wishes, to appoint some qualified Engineer to make the required examination, and furnish a report on the nature of the several sites, and a rough estimate of the cost of building docks on each of them.

I have the honour to be, &c.

(Signed) C. WADDINGTON, Major General,  
President of the Committee.

*Bombay, 25th April 1855.*

No. 3 OF 1855.

PUBLIC WORKS DEPARTMENT.

To W. HART, Esq.,

Secretary to Government.

SIR,—Referring to my letter to your address No. 2, of the 25th April, in which I had the honour to submit a request, from the Committee of which I am President, that Government would be pleased to appoint a qualified Engineer to examine and report on the several sites in Bombay Harbour proposed for wet docks, I beg to bring to the notice of the Right Honorable the Governor in Council that Lieutenant Selby, of the Indian Navy, has declared his readiness to

perform this service, if Government and the Commander in Chief of the Indian Navy should permit him to do so.

2. Lieutenant Selby has recently made soundings of the harbour of Bombay, and is an experienced nautical surveyor. He would undertake to prepare a plan on a large scale of that part of the harbour which comprises the three sites best fitted, apparently, for wet docks, giving the depths at different times of tide, both spring and neap, the nature of the bottom throughout, and at what depth beneath a rocky or otherwise firm stratum is to be found.

3. During this examination, Lieutenant Selby would probably have opportunities of observing the facilities or obstacles to approach of the several sites; and it seems to me not unlikely that a naval officer would execute this duty more satisfactorily, and, from the assistance which might be rendered to him from the Indian Navy, more economically, than a civil engineer.

4. The preparation of an estimate Lieutenant Selby could not undertake, but, with the data which he would furnish, it would no longer be difficult to draw up a rough estimate.

I have the honour to be, &c.

(Signed) C. WADDINGTON, Major General,

President of the Committee on a Site for Wet Docks.

*Bombay, 3rd May 1855.*

No. 327 OF 1855.

• PUBLIC WORKS DEPARTMENT.

To the COMMANDER IN CHIEF OF THE INDIAN NAVY.

SIR,—The Committee recently appointed to consider the question of wet and dry docks have proposed three sites as appropriate for docks in the Bombay harbour, and it has been recommended to the Right Honorable the Governor in Council that Lieutenant Selby, of the Indian Navy, should be entrusted with the duty of examining and reporting upon them.

2. His Lordship in Council is desirous that advantage should be taken of the qualifications of Lieutenant Selby for this duty, and requests, therefore, that you will have the goodness, without loss of

time, to make his services available for the purpose indicated above, but this, I am directed to add, is not intended to interfere with Lieutenant Selby joining his new appointment in the Persian Gulf and on the Euphrates; and the requisite surveys are to be undertaken by him only on that understanding.

I have the honour to be, &c.

(Signed) W. HARR,  
Secretary to Government

*Bombay Castle, 5th May 1855.*

No. 4 of 1855.

PUBLIC WORKS DEPARTMENT

From Major General C. WADDINGTON, C.B.,  
Chief Engineer.

To W. HARR, Esq.,  
Secretary to Government.

SIR,—Referring to your letter No. 94, of the 21st March last constituting a Committee for the purpose of determining the locality best adapted for wet docks, I have the honour to bring to the notice of the Right Honorable the Governor in Council that the following members of the Committee have left Bombay, and will not be again available as members :—

Commander Daniell, Master Attendant.

Major Estridge.

John Ritchie, Esq., nominated by the Chamber of Commerce.

I request that you will obtain the orders of Government as to the appointment of fresh members to replace these three gentlemen.

I have the honour to be, &c.

(Signed) C. WADDINGTON, Major General,  
Chief Engineer, and President of the Committee  
for reporting on the question of Wet Docks.

*Bombay, Chief Engineer's Office, 23rd August 1855.*



No. 1120 of 1855.

PUBLIC WORKS DEPARTMENT.

To Major General C. WADDINGTON,

President of the Committee appointed to consider  
the Project for Wet and Dry Docks.

SIR,—In reply to your letter No. 4, dated the 23rd August, I am directed to acquaint you that the Chamber of Commerce have been invited to name another gentleman, in place of Mr. Ritchie, to act as a member of the Committee.

2. A reference has also been made to the Commander in Chief of the Indian Navy, to ascertain if he has any objections to the appointment of the Master Attendant as a member *ex-officio*, in succession to Captain Daniell.

3. The Right Honorable the Governor in Council does not consider it necessary to fill Major Estridge's place in the Committee.

I have the honour to be, &c.

(Signed) W. HART,  
Secretary to Government.

*Bombay Castle, 31st August 1855.*

No. 1152 of 1855.

PUBLIC WORKS DEPARTMENT.

To Major General C. WADDINGTON,

President of the Committee appointed to consider  
the Project for Wet and Dry Docks.

SIR,—With reference to my letter No. 1120, dated the 31st August 1855, I am directed to acquaint you that, at the recommendation of the Chamber of Commerce, the Right Honorable the Governor in Council has been pleased to appoint Mr. James Graham to act as a member of the Dock Committee, in the place of Mr. Ritchie.

2. With the concurrence of the Commander in Chief of the Indian

Navy, His Lordship in Council has also appointed the Master Attendant a member *ex-officio* of the Committee.

I have the honour to be, &c.

(Signed) W. HART,  
Secretary to Government.

*Bombay Castle, 6th September 1855.*

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NO. 8 OF 1855.

PUBLIC WORKS DEPARTMENT.

To W. HART, Esq.,  
Secretary to Government.

SIR,—I have the honour with this letter to submit the final resolution of the Committee appointed by the Right Honorable the Governor in Council to consider certain projects and plans for wet and dry docks, laid before them with your letter No. 94, of the 21st March 1855, and also any others which might be brought before them, with a view to determine the locality which it will be most proper for Government to offer to any Company who may undertake to construct the projected docks.

2. The final resolution of the Committee has appended to it copies of the proceedings of the Committee, with original papers which were brought before it in the course of its sittings, and the following plans and estimates accompany :—

Survey of part of Bombay Harbour, examined principally with a view to ascertain the best site for Wet Docks ; by Commander W. B. Selby, Indian Navy (a tracing).

Plan of proposed Docks between Carnac Bunder and Fort George, with an Estimate, amounting to Rs. 11,01,149 ; by C. Gerrard, Esq., Civil Engineer.

Plan of proposed Docks at Moody Bay, with an Estimate, amounting to Rs. 7,86,615 ; by C. Gerrard, Esq., Civil Engineer.

Plan of proposed Docks between the Apollo Pier and Arthur Bunder, with an Estimate, amounting to Rs. 9,68,079 ; by C. Gerrard, Esq., Civil Engineer.

Plan of proposed Docks to the south of Arthur Bunder, with an Estimate, amounting to Rs. 8,80,954 ; by C. Gerrard, Esq., Civil Engineer.

Four Sheets of Sections to the four abovementioned Plans ; by C. Gerrard, Esq., Civil Engineer.

3. In addition to the cost of the docks, at whatever site they might be constructed, I may add, in my capacity of Chief Engineer, that as I should consider it necessary to recommend some protection, most probably towers or redoubts, in advance of and flanking the walls of the docks, a certain sum should be added to the estimate on that account. For the Moody Bay docks, as originally planned under my instructions, Major Tremenheere provided two redoubts, the estimated cost of which was Rs. 2,02,212. The site between the Apollo and Arthur Bunders would require at least the same amount of defence, and probably more.

4. The construction of lofty and substantial warehouses within a few hundred yards of the fortified *enceinte* would prejudice the defence of the Fort of Bombay to a certain extent without doubt, as an enemy in possession of such warehouses would have a musketry command over the opposite works ; but this would not invalidate their use as a protection against assault or a *coup de main* ; and, under the existing condition of the Fort, completely filled as it is with lofty and combustible buildings, the true use and value of the walls I consider to be this, that they are a protection against sudden assault, and not that they would support a siege, or a continued bombardment from an armament of any considerable force. In time of peace, also, they keep out robbers, and give a great feeling of security to the inhabitants of the Fort, as is well known to those who have spoken with intelligent Natives on the subject.

5. When, from necessity or strong motives of convenience, lofty buildings, or even temporary obstructions, such as vessels on the slips, must be tolerated within a moderate distance of the ramparts, the wisest course is to endeavour to protect them from the near approach of an enemy by heavy batteries and redoubts. To enclose them within continued walls, and thus add them to the fortifications, would be attended with great inconvenience, and is not, therefore, to be recommended ; but to leave them without defence, exposed, perhaps, to destruction by a single hostile frigate, is equally to be deprecated, in my humble opinion. In any system of docks, there-

fore, the cost of two or three redoubts should be reckoned in addition to the estimate for the docks.

I have the honour to be, &c.

(Signed) C. WADDINGTON, Major Genl., Engineers,  
President of the Dock Committee

*Bombay, 10th October 1855.*

*Final Resolution of the Committee appointed by Government to consider and report upon certain Projects and Plans for Wet and Dry Docks, with a view to determine the Locality which it will be most proper for Government to offer to any Company who may undertake to construct the projected Docks.*

1. With regard to the site proposed by Mr. Heycock between the Carnac Bunder and Boree Bunder,—

RESOLVED,—That any advantages which the site proposed by Mr. Heycock presents are overbalanced by the probable difficulties and expense of construction on that site.

2. That the site at Moody Bay is not sufficiently large for a general scheme of dock accommodation, although it might suffice for import docks only. From the estimates before the Committee, it appears, also, that the cost of construction at Moody Bay would be much more considerable, in proportion to the accommodation afforded, than at any of the other sites. The site is in all other respects most eligible.

3. That the site between Apollo Bunder and Arthur Bunder appears to the Committee, all points considered, preferable to any other. It has the paramount advantage of ample space, is easy of access by sea, possesses commercial conveniences little inferior to those of the Moody Bay site, and, with reference to the accommodation to be obtained, may probably be built on at a lower cost.

4. That the site proposed between Arthur Bunder and Bummalow Island has no particular advantages either for construction or

approach, and is too far from the Town and Fort to be recommended.

(Signed) C. WADDINGTON, Major General, Engineers,  
President.

„ E. HEYCOCK.

„ CHARLES WILLIAM MONTRIOU,  
Commander I. N., and Master Attendant.

„ R. STRONG.

„ RICHARD SPOONER.

„ JOHN PARSONS.

„ JAMES GRAHAM.

#### APPENDIX.

*Proceedings of the Committee appointed to consider the question of the most eligible Site for Wet and Dry Docks in the Harbour of Bombay.*

*Bombay, 18th April 1855.*

Present,—

Major General C. WADDINGTON, C.B.

E. HEYCOCK, Esq.

Commander DANIELL, I. N.

R. STRONG, Esq.

R. SPOONER, Esq.

J. PARSONS, Esq.

J. RITCHIE, Esq.

Major ESTRIDGE.

Absent,—

J. J. BERKLEY, Esq.

Read letter from Government, No. 94, dated 21st ultimo, appointing the Committee, also the following accompaniments to the above :—

Letter from Mr. Heycock, dated 15th ultimo, to Secretary to Government.

Letter No. 789, dated 31st October 1854, from Colonel Waddington, C.B., to Secretary to Government.

Resolution of Government, dated 17th March 1855.

The following statement by Mr. Heycock, setting forth the advantages of a dock at Boree Bunder, read to the Committee :—

1. That it is central between the Fort and Town of Bombay.
2. That the railway runs alongside the dock, and, without inconvenience, could deliver all goods ready for export, and receive goods ready for the interior, at once, to and from the ships.
3. That it provides space for all the shipping now trading with Bombay, and for a largely increased trade for some time to come.
4. That, taking the extent of the docks into consideration, the cost of constructing them is less for their accommodation than any other place yet selected.
5. That the position is well sheltered for shipping, and the difficulties for entrance not so great as to render the cutting of the necessary channel anything like an impracticable difficulty.

The following statement, made in support of Colaba as a site for the docks, is brought before the Committee by a member, and read :—

1. That the docks would be brought to the chief seat of present seaborne trade, more particularly that with Europe, and which docks are more particularly designed to benefit.
2. That it is the chief, if not the only depôt of the cotton trade, and offers great facilities for the landing and storage of such.
3. That the warehouse accommodation for European manufactures is already great, and, from the vacant space existing, affords opportunity of extending the same if required.
4. That the large Press Companies have their chief establishments there, and where the bulk of the cotton and wool is now pressed.
5. That it is not inconvenient as regards the offices of the mercantile community, the European portion of the Fort and that part of Colaba being now in close contact.
6. The Custom House returns will show that the general trade at Colaba has of late years considerably increased, and which of itself may be taken as evidence of the advantages the locality offers in a commercial point of view for the formation of docks.

The following objections to the several plans presented themselves in discussion by the Committee.

To Mr. Heycock's plan :

One effect of adopting Mr. Heycock's plan would be to transfer the seaborne trade of Bombay from the Fort and Colaba to the Native Town in a great measure.

Difficulty of access for ships.

Reply :

Mr. Heycock thinks otherwise, as his proposed docks are nearly central between the Fort and Native Town. The warehouse accommodation is already as extensive as can ever be in the Fort, and any increase thereof must extend itself in a northerly direction, on account of the railway.

Objections raised to the Moody Bay Docks :

1. There is not sufficient room adjoining the docks for the general trade of the place, which would of course seek to approach the docks, and specially for stowing cotton and wool. There are cotton-screws in the Fort, not very far removed, but not sufficient for the whole trade.

2. That the docks provided are not sufficient to accommodate the shipping of the port, either as to number or size of the ships.

3. There is no provision for dry docks.

Reply :

Major General Waddington replies that they suffice for the present shipping as to number, though not, perhaps, as to size ; and that they may be enlarged, though only at a heavy expense. It is considered that the improved expedition in the discharge and despatch of vessels will decrease the number of vessels at any one time in harbour considerably.

Mr. Ritchie, Captain Daniell, and Major General Waddington doubt whether it would be desirable, as a speculation, to build a dry dock in addition to the wet docks.

Objections to the site between the Apollo Pier and Colaba (Bummalow Island) :

1. Inconvenience of its position with reference to the railway terminus, as at present proposed.

2. The exposed situation and rough sea during the monsoon.

Reply :

Might be remedied by a breakwater, but there would probably be an accumulation of silt.

*Resolutions of Committee :—*

1. The Committee are, with the exception of Mr. Heycock, unanimous in disapproving of the site proposed by him for docks.

2. With regard to the plan for docks at Moody Bay, the Committee are unanimously of opinion that, if sufficient accommodation could in any way be obtained at that site, it offers greater advantages than either the site proposed by Mr. Heycock, or that suggested between the Apollo Bunder and Bummalow Island.

3. The suggestion for making docks between Apollo Bunder and Bummalow Island deserves attention, from the great commercial interests which it would serve ; and the Committee think that if any Company should be formed with a view of carrying such a project into execution, and should decidedly prefer it to the site at Moody Bay, it may be worthy the consideration of Government whether, under such circumstances, it might not be proper to sanction such an undertaking in preference to that at Moody Bay, or in concurrence with it.

*Proceedings of the Committee appointed to consider the question of the most eligible Site for Wet and Dry Docks in the Harbour of Bombay.*

*Bombay, 24th April 1855.*

Present,—

Major General WADDINGTON, C.B.

E. HEYCOCK, Esq.

R. STRONG, Esq.

R. SPOONER, Esq.

J. J. BERKLEY, Esq.

J. PARSONS, Esq.

J. RITCHIE, Esq.

Major ESTRIDGE.

Absent,—

Commander DANIELL, I. N.

The President laid before the Committee a plan of the eastern



shore of Bombay, from the Carnac Bunder, north of the Esplanade, to the Jamsetjee Bunder at Colaba, showing the low-water line at spring tides, and the soundings.

The following memorandum was added to the objections recorded in the proceedings of the previous meeting, viz :—

Mr. Ritchie carries his objections much further. He is of opinion that the advantage of bringing ships into a wet dock has been much overrated ; that the discharge and loading of ships in the harbour of Bombay can be performed with facility and despatch ; and that he should deprecate any compulsory use of wet docks attended with heavy dock dues.

A memorandum from J. J. Berkley, Esq., dated 20th April, is laid before the Committee (A).

The proceedings of the former meeting of the Committee having been read over, with the addition of Mr. Ritchie's objections to the advantage of bringing ships into wet docks at all, and discussed, as well as Mr. Berkley's memorandum of the 20th instant, the Committee adopt the following resolutions :—

That the Committee agree with Mr. Berkley as to the want of precise information on the following points, as enumerated in his memorandum :—

“ 1. The area that would be available on each spot for wet and dry docks.”

This information has been partially supplied by the plan laid before the meeting by the President.

“ 2. The navigable merits of the approach to each of the dock sites, with respect to the depth of water and width of the channel at low-water tides, to the currents, and prevailing winds.”

Captain Daniell to be requested to favour the Committee in writing with information on these points.

“ 3. The facilities or difficulties which each site presents for the construction of the proposed docks.”

The acquisition of correct information on these points can only be made by a careful examination of the ground by probing or boring ; and, as this will involve expense, Government should be addressed to sanction that expenditure, and authorise some qualified Engineer to conduct the required experiments.

“ 4. An approximate estimate of the cost of the proposed docks, and the period that would probably be required for constructing them.”

Mr. Heycock will furnish the Committee with an approximate estimate for the execution of his project. Government to be addressed, with a request that they will allow some qualified Engineer to prepare the estimates for the docks at the other two sites.

Amendment proposed by Mr. Berkley to the resolutions on the 3rd and 4th points,—

“That instead of requesting Government to sanction that expense, and authorise some qualified Engineer to conduct the required experiments, the promoters of the projects be requested to furnish the necessary information concerning their respective sites, either by witnesses or by documentary evidence.”

The amendment, being put to the vote, was negatived, and the resolutions as proposed by the President affirmed.

N. B.—A letter was addressed to Government in accordance with the above, by the President of the Committee, dated 25th April 1855, and a subsequent letter on the 3rd May ; and, in compliance with the Committee's application, Commander Selby, of the Indian Navy, was appointed to survey the sites proposed for the new docks. Mr. Gerrard, Civil Engineer, arriving shortly afterwards from England, was detained in Bombay on the recommendation of the Chief Engineer of Public Works, in order to prepare plans and estimates for docks on the several proposed sites.

A memorandum by Captain Daniell, dated 27th April, furnished by him in compliance with the request of the Committee, was circulated among the members, and is annexed (B).

Commander Daniell, Mr. Ritchie, and Major Estridge, having quitted Bombay, Captain Montriau and Mr. Graham were named members in place of the two former. Major Estridge, who had been Secretary to the Committee, was not replaced.

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*Proceedings of the Committee appointed to consider the question of the most eligible Site for Wet and Dry Docks in the Harbour of Bombay.*

*Bombay, 13th September 1855.*

Present,—

Major General C. WADDINGTON, C.B.

E. HEYCOCK, Esq.

R. STRONG, Esq.

R. SPOONER, Esq.

J. J. BERKLEY, Esq.

J. PARSONS, Esq.

Absent,—

Commander MONTRIOU.

J. GRAHAM, Esq.

The President produced before the Committee four plans for wet docks,—viz. one between Carnac and Boree Bunders, one at Moody Bay, one between the Apollo and Arthur Bunders, and one between the Arthur and Cotton-screw Bunder, Colaba, with estimates, amounting respectively to Rs. 11,01,149, Rs. 7,86,615, Rs. 9,68,079, and Rs. 8,80,954, the whole of the above having been prepared by C. Gerrard, Esq., Civil Engineer.

The President explained to the Committee that the plan of soundings prepared by Captain Selby had been sent in by that officer to the Commander in Chief Indian Navy, and that he, the President, had applied for the loan of the plan on the 10th instant, but had not received a reply to his application. As this plan is considered important towards forming a decision as to the preferable site for docks, it is decided to adjourn the Committee.

Committee adjourned.

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*Proceedings of the Committee appointed to consider the question of the most eligible Site for Wet and Dry Docks in the Harbour of Bombay.*

*Bombay, 21st September 1855.*

Present,—

Major General C. WADDINGTON, C.B.

E. HEYCOCK, Esq.

Commander C. W. MONTRIOU, I. N.

R. STRONG, Esq.

R. SPOONER, Esq.

J. PARSONS, Esq.

J. GRAHAM, Esq.

Absent,—

J. J. BERKLEY, Esq.

Captain Selby's chart, which had been received from the Commander in Chief Indian Navy, was laid before the Committee.

Read to the Committee a Memorandum (C) by Major Cruickshank on Mr. Gerrard's estimate for wet docks at Moody Bay, pointing out the deficiencies and mistakes in that paper, and increasing the estimate from Rs. 7,86,615 to Rs. 12,71,504 ; also a note from Major Cruickshank, stating his belief that the sea dam proposed by Mr. Gerrard would not stand out one monsoon.

As the defects and mistakes in all Mr. Gerrard's estimates are similar, it appears to the Committee that if the remaining estimates be increased in the same proportion as that for the Moody Bay docks, they will present a fair approximation to probable cost. According to that calculation, the estimates for the several projects would be as follows :—

|  | Mr. Gerrard's<br>Estimate. | Corrected<br>Estimate. |
|--|----------------------------|------------------------|
| Docks between the Carnac and Boree     |                            |                        |
| Bunders (Mr. Heycock's site).....      | Rs. 11,01,149              | 17,79,925              |
| Docks at Moody Bay .....               | 7,86,615                   | 12,71,504              |
| Docks between Apollo & Arthur Bunders. | 9,68,079                   | 15,64,826              |
| Docks south of Arthur Bunder ....      | 8,80,954                   | 14,23,996              |

The two new members of the Committee being present for the first time, all the proceedings of the Committee were read over from the beginning.

Mr. Heycock expressing a wish to have the plans and estimates of the docks for more particular examination, Mr. Berkley having expressed the same wish at the last meeting, and the Committee being of opinion that, in addition to Captain Selby's chart, they should have the Master Attendant's matured opinion as to the comparative facility of ingress to the several proposed sites and egress from them, Commander Montriau was requested to furnish that information, and the Committee adjourns.

*Proceedings of the Committee appointed to consider the question of the most eligible Site for Wet and Dry Docks in the Harbour of Bombay.*

*Bombay, 5th October 1855.*

Present,—

Major General C. WADDINGTON, C.B.

E. HEYCOCK, Esq.

Commander C. W. MONTRIAU, I. N.

R. STRONG, Esq.

R. SPOONER, Esq.

J. J. BERKLEY, Esq.

J. PARSONS, Esq.

J. GRAHAM, Esq.

The accompanying memorandum (D) of this date, drawn up by Commander Montriau, the Master Attendant, was laid before the Committee, also a memorandum (E) taken from the estimates of the areas of the docks, the number of ships which they would accommodate, and the amount of excavation in rock.

Mr. Berkley thinks that the Committee should, in their report to Government, avoid going into a statement or consideration of the arrangements proposed for the docks on the several sites, of the engineering details of construction, and of matters of estimate; but that the Committee should confine its opinion and observations to those general points upon which the eligibility of the several sites proposed for the Bombay docks depends.

Mr. Heycock lays before the Committee a memorandum (F) in which he withdraws his former opinion in favour of the site between the Carnac and Boree Bunders. The memorandum is read to the Committee.

The President inquires whether the report now made to Government shall comprise either the former proceedings of the Committee *in extenso*, or an abstract of the proceedings of the Committee, or be restricted to their final decision on the points submitted by Government.

The Committee decide that the proceedings shall accompany the report in the shape of an appendix.

The final resolution of the Committee is as follows. [See the preceding final resolution.]

(True copy)

(Signed) C. WADDINGTON, Major Genl. Engineers,  
and President.

(A) *Memorandum.*

Having read the minute of proceedings of the Committee at the meeting of the 18th instant, it appears to me that there is not sufficient evidence before us to enable us to arrive summarily at final decisions upon the important projects that have been brought under our consideration. I think it indispensable, for the purpose of forming a correct judgment upon the comparative merits of the three sites which have been proposed for the Bombay docks, that we should have, among others, the following facts before us :—

The area that would be available at *each spot*, both for wet and dry docks.

The navigable merits of the approach to *each* of the dock sites, with respect to the depth of water and width of the channel at low tides, to the currents, and to prevailing winds.

The facilities or difficulties which *each* site presents for the construction of the proposed docks.

An approximate estimate of their cost, and the period that would probably be requisite for constructing them.

The capabilities as to available space, or the purchase of existing property, which the ground adjacent to the dock quays presents in each case for the accommodation of the export and import trade, for dock and customs offices, and both for ordinary road communications and complete railway station arrangements.

These, and other facts concerning each of the proposed sites, ought to be ascertained and placed before us, and considered with reference not only to the present, but to the prospective requirements of the commerce of the port of Bombay, before we can arrive at such conclusions as we should be able to abide by. In the absence of them, I am unprepared to record my decision upon the comparative merits of the three proposed sites for Bombay docks; but I beg to submit the following observations upon the three resolutions which are recorded in the proceedings at the late meeting :—

*1st.*—The central position of Mr. Heycock's docks between the port and town of Bombay is, I consider, highly eligible, so far as regards the accommodation of the public trade. It would be conveniently accessible for that part of it which is locally represented by the Fort on the one side and by the Native Town on the other; for the export and import trade of the interior of the country, as represented by the railway; and for the commerce of Colaba, as represented by the cotton-screws, warehouses, and offices of the Colaba Company, with which a convenient railway communication could be established with the greatest ease, and at small cost,—a fact which I have already ascertained, by having laid out a branch line from the Great Indian Peninsula Railway Company's main line at Boree Bunder to the Colaba Company's premises.

*2nd.*—Mr. Heycock's site for the docks possesses very great advantages as regards quay and warehouse accommodation, railway station arrangements, and public road approaches; in consequence not only of the available space between the new quay lines from Boree Bunder to the Native Town, and the southern boundary line of the temporary railway terminus, but also from the facilities that are presented by the shoal for reclaiming extended space for dock quay purposes beyond the quay wall which has been lately built. This advantage is of paramount importance, because the commerce with the interior consists of very bulky staples, which require spacious room for their accommodation, and will, in all probability, rapidly undergo a very large increase in quantity.

*3rd.*—Judging of Mr. Heycock's statement merely from his plan and chart, it appears that the site he proposes would afford ample dock room for all the shipping now trading with Bombay, and for a large prospective increase of it.

*4th.*—We are not in possession of sufficient evidence to allow of

our recording any opinion as to either the absolute or relative cost of constructing Mr. Heycock's docks.

5th.—Respecting the navigable and harbouring merits of Mr. Heycock's proposed site, it would appear to be well sheltered for shipping, while Lieutenant Selby's chart represents the difficulty of the entrance channel from the middle-ground of the harbour to be much less than might have been expected.

In addition to the above remarks, this site would admit of the construction of a dry dock ; and I am prepared to express my impression that the construction of docks in the site proposed by Mr. Heycock would be favourably regarded by the Railway Company.

For these reasons, I beg to dissent from the first resolution of the Committee.

With reference to the Moody Bay site for the docks, it is admitted that although it would suffice for the present shipping of the port of Bombay as to number, it probably would not do so as to size, and that to increase it so as to meet fully the present and prospective wants of commerce would involve a heavy expense. I am not disposed to attach any weight to the supposition that greater expedition in the discharge and despatch of vessels would so far lessen their number as to reduce the requisite dock room to what is barely sufficient for the present trade ; because I consider that the effect of expedition in that respect will be more than counterbalanced by the increase of shipping that will be consequent upon the construction of docks, the supply of materials for railways and public works, and upon opening out improved communications with the interior of the country. It appears, also, to be granted, that if a dry dock were needed it could not be made in Moody Bay.

This site, as regards the accommodation of trade, appears to me to be highly unfavourable. Although closely contiguous to the Fort, it is remote from the Native Town, and would not allow of a convenient railway communication with Colaba.

The space available for a quay for custom-house and dock offices, for warehouses, sheds and yards for railway station arrangements, and for public road approaches, is very inadequate, and could only be extended at enormous cost ; because the adjacent ground in the Fort is now so greatly demanded for the present business, trade, and Government establishments within its limits, as to bear an immense marketable value ; and, in addition to that, it would be necessary, for



the purpose of obtaining sufficient space, to destroy a great deal of valuable and important property.

I consider it indispensable that in selecting a site for docks due regard should be had to the practicability of providing ample railway station accommodation for the trade, and upon this essential part of the dock arrangements, which so greatly involves both the efficiency of the docks and public accommodation, I think that the proposed site at Moody Bay is open to most serious objections; while, as regards the interests of the Railway Company, I may confidently state that if the docks were constructed in Moody Bay, and their terminus were not allowed to be placed upon the plot of the reclaimed ground there, which the Government have virtually promised to concede to them, it would deteriorate their property, and otherwise be in the highest degree prejudicial to them.

With reference to the merits of the Moody Bay site as to facilities for the construction of docks, their approximate cost, and the period which would probably be required for completing them, no evidence is at present before me.

I beg, for the above reasons, to dissent from the second resolution of the Committee.

With respect to the statement made in support of Colaba as a site for the docks, I would submit the following remarks :—

*1st.*—Important vested interests undoubtedly exist in the neighbourhood of the proposed site, but it is most probable that the opening out of improved communications with the producing districts of the country will, in the course of a very few years, affect materially the present commercial arrangements; and although under any circumstances the commercial facilities and interests which exist at Colaba ought to be duly regarded, yet their importance becomes greatly lessened when we are considering the position of docks, which are to affect all the prospective sea-borne trade of the port of Bombay.

*2nd.*—Although Colaba is now the chief depôt of the cotton trade, I cannot for the above reasons regard that fact as of essential importance in the consideration of the question before us; but it must be admitted that the adjacent ground offers greater facilities for the landing and stowage of goods than either the Boree Bunder or Moody Bay sites. These, however, might still be made available, though the docks were placed at Boree Bunder, as proposed by Mr. Heycock, because a convenient branch railway between them and the

docks could be made with ease. This would only be practicable at great cost, and in an objectionable manner, if the docks were placed at Moody Bay.

3rd.—The advantages as regards warehouse accommodation for European manufactures could also be turned to account by means of the branch railway which I have alluded to.

4th.—The cotton-screws are at present the chief means of collecting so much of the trade of Bombay in the neighbourhood of Colaba; but having well deliberated upon the question of improved communication from Berar to Bombay, I am very strongly of opinion that this arrangement will be disturbed before the Bombay docks are completed, by the erection of cotton-screws at some centralised depôt in the interior of the country.

5th.—The Colaba site is not so convenient, either for the trade of the Fort or the Native Town, as Moody Bay, and very much less so than the Borce Bunder site.

6th.—Any increase in the general trade at Colaba that may be shown by the custom-house returns of late years is, no doubt, due to the existing facilities there. These appear to me to be of limited importance in considering the position of docks, which ought to be established for the accommodation of the entire prospective trade of the port of Bombay.

We have no evidence as to the facilities for constructing docks at Colaba, their probable cost, and time required for completion.

(Signed) J. J. BERKLEY.

*Bombay, Railway Office, 20th April 1855.*

(B) *Memorandum.*

As regards the navigable merits of the approach to each of the dock sites, I beg to state that the one proposed by Mr. Heycock is surrounded to the northward and eastward with dangerous reefs of rocks, and shallow water extends a long way off shore; to the southward, or near the Carnac Bunder, a small and narrow channel exists, but it is difficult of access, particularly during the south-west monsoon, on account of the shallowness of the water, and a heavy

southerly swell, which invariably breaks a long distance off shore. Several detached reefs of rocks are also in the vicinity of it, which would render it unsafe for deeply laden merchant ships to approach, unless under the most favourable circumstances.

The Moody Bay site, or the one proposed by General Waddington, I consider free from danger, there being no reefs in its immediate vicinity, and ample room to haul a ship not drawing more than 15 to 17 feet in or out at any time at high-water.

The Colaba site, from the Apollo Bunder to Bummalow Island, is very exposed and dangerous, particularly at the setting in and during the south-west monsoon, for the sea runs high, and breaks heavily a long distance off shore ; several reefs and sunken rocks also surround the face of it, making it impracticable for any ship to approach with any degree of safety.

The tides run NNE. and SSW., at a general rate of one and half to two and a half miles per hour, and the average height of water at or near each of the above sites at the full and change of moon is from 20 to 22 feet, at the neaps from 14 to 16 feet. They are not always to be depended on, for during the north-east monsoon or fine weather season, particularly in the months of December and January, a very considerable difference in the rise is often experienced, which is much less these months than at other times.

Prevailing winds are as follows :—

From November to February land and sea-breezes are experienced ; March and April westerly, NW. ; May, southerly and SSE. ; June to August, southerly and SW. ; September and October westerly, with light land wind occasionally ; and strong southerly SE. gales are often experienced in the latter end of October, and the early part of November.

(Signed) E. DANIELL, Commander I. N.,  
Master Attendant.

*Master Attendant's Office, April 29th, 1855.*

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(C) *Memorandum on Mr. GERRARD's Estimate for Wet Docks at Moody Bay.*

There is no plan nor section of the sea dam given, but it is evident that rubble stone would not stand the wash of the sea with a medium width of 10 feet for a height of 28 feet. I would not undertake for a less slope than  $1\frac{1}{2}$  to 1 in height outside, and 1 to 1 inside ; this, with 2 feet of packed rubble on each side of the clay packing, would give 2,013,160 cubic feet of rubble stone, which, at Rs. 4 per 116 solid feet, for which I dare say the stone could be laid and filled in, would give, omitting fractions of a rupee. . . . . Rs. 69,419 0 0

The second item in the abstract is charged too low.

The mud cannot, I conceive, be brought in boats, carried to where it may be required, and stamped down, for less than Rs. 1-8-0 per 100 cubic feet, which for 5,12,400 cubic feet would give . . . . . 7,686 0 0

In the description, the length of the import dock is put down as 1,070 feet long, which does not agree with the length per scale in the plan, and in the measurements it is entered as 1,057. It is impossible to say from these documents whether the depths to be excavated are correct ; the calculations are right, cubic feet 2,271,540. The export dock is described as 1,340 feet long, while the measurements give 1,416, which is more than the length of the dock as shown in the plan. The third item in export dock is carried out 221,697 instead of 221,000, probably owing to some decimal being omitted after the height 13 ; this alteration will give a total of excavation for the export dock 2,268,230 instead of 2,268,927. The item for excavating between import and export gate is carried out 305,964 instead of 306,000, probably

Carried over. . Rs. 77,105 0 0

|   |          |   |   |
|---|----------|---|---|
| Brought over. . Rs.   | 77,105   | 0 | 0 |
| owing to the omission of some decimal. The dimensions for the lock chamber, &c. cannot be verified. The total excavation will therefore be $2,271,540 + 2,268,927 + 966,000 = 5,506,467$ cubic feet. It is not stated what the excavation is likely to consist of, although the section shows that it is altogether stone. I do not think it could be done for a pie less than Rs. 4 per 100 cubic feet, which for the whole would give . . . .   | 2,20,258 | 0 | 0 |
| The dimensions of the portion of the cremallere work proposed to be removed in the plan and estimate are irreconcilable. The quantity is 406,400 cubic feet, and the rate, Rs. 3-4-0, seems sufficient . . . . .  | 13,208   | 0 | 0 |
| The sea wall foundation, 73,584, is correct, and as there is mud along the line, the rate, Rs. 3-4-0, may suffice. This wall extends from the redoubt to the beginning of the curve at the outer end of the lock . . . . .  | 2,391    | 0 | 0 |
| The total amount of the four items for filling in, in Mr. Gerrard's estimate, is 8,120,008 cubic feet, charged at 8 and 12 annas per 100 cubic feet ; but it does not seem very clear on what principle this is done. Now, as there are 1,212,203 cubic feet of rubble stone masonry to be executed, I take it for granted that this quantity of stone will be procurable from the excavation of 5,506,467 cubic feet ; there will, therefore, remain, for the purpose of filling in, 4,294,264 cubic feet earth and stone. I imagine that this cannot be moved, when it will be wanted, for less than 12 annas per 100 cubic feet ; that rate will give for this portion of the filling in . . . . . | 32,207   | 0 | 0 |
| There will, however, remain 3,825,744 cubic feet of filling in to be procured elsewhere, and as this must be brought from a distance, and be dis-   |          |   |   |
| Carried over. . Rs.   | 3,45,169 | 0 | 0 |

|   |          |   |   |
|---|----------|---|---|
| Brought over. .Rs.  | 3,45,169 | 0 | 0 |
| charged outside the dam, I do not think it will cost less than Rs. 2-8-0 per 100 cubic feet, which will give .....  | 95,643   | 0 | 0 |
| The masonry in foundation of sea wall, 18,408 cubic feet, would probably be executed for Rs. 12 per 100 cubic feet, the stone being had from the excavations ; but all this will depend on the arrangement made for having water and mortar at hand, say Rs. 12 .....   | 2,209    | 0 | 0 |
| The foundations of the dock walls, 41,884 cubic feet, will also cost Rs. 12 per 100 cubic feet, the stone being supplied from the excavation ; this gives .....   | 5,026    | 0 | 0 |
| The amount of cubic feet of rubble masonry in lock and dock walls and counterforts is 913,088, which, at Rs. 15 per 100 cubic feet, the stone being supplied from the excavation, will give ..  | 1,36,963 | 0 | 0 |
| The number of cubic feet in coping of sea wall from redoubt to lock is 7,869, which, at Rs. 1-6-0 per foot, will give .....   | 10,820   | 0 | 0 |
| The description of stone facing for sea wall and walls of docks is not given, but supposing it to be of the description used on the Moody Bay work, viz. large khandkees, the charge of Rs. 70 per 100 superficial feet would be about it ; which, for 127,877 superficial feet, gives .....  | 89,514   | 0 | 0 |
| In the general description of works it is stated that the lock walls are to be faced with ashlar work, but the size of the square stone is nowhere given : supposing it to be alternately a stone of 2 feet long and 1 foot high and 2 feet deep, and 2 feet long on the face, and 1 foot high and 1 foot deep, the charge would be about Rs. 180 per 100 superficial feet, of which there are 38,841, which would give ..... | 31,072   | 0 | 0 |
| The charge for stone coping for the dock walls will   |          |   |   |

Carried over. .Rs. 7,16,416 0 0

|  |          |   |   |
|--|----------|---|---|
| Brought over. . Rs.  | 7,16,416 | 0 | 0 |
| be the same as that for the sea wall ; Rs. 1-6-0 per cubic foot for 32,010 cubic feet gives, instead of Rs. 440-2-2 . . . . .  | 44,014   | 0 | 0 |
| The charge for the stone coping of lock walls, 4,836 solid feet, at Rs. 1-6-0 per solid foot, instead of Rs. 56-7-11, as charged at Rs. 1-6-0 per 100 cubic feet . . . . .   | 6,712    | 0 | 0 |
| There is evidently some mistake about the hollow coins. The size of the stone is nowhere mentioned ; but supposing it to be 3 feet square, and 1½ feet high, this would give 64 such stones for the four heel-posts of the gates ; at Rs. 1-8-0 per cubic foot, the charge for each stone would be Rs. 20, and for the 64 stones, instead of Rs. 192. .  | 1,280    | 0 | 0 |
| The charge for the lock gates is entered in one item of Rs. 4 per cubic foot of the timber work when completed. This is much too small. I find that in my late estimate for renewing the dock gate at Mazagon, the expense would have averaged Rs. 8-12-0 per square foot, exclusive of the heavy iron work and copper sheeting. Looking to the larger space and height of these gates requiring larger timber, I do not think that Rs. 11 per square foot would be a bit too high, and this I find to be about the charge made by the Civil Engineer in June 1830. The proposed gates contain about 3,422 square feet, which, at Rs. 11 per foot, gives . . . . . | 37,642   | 0 | 0 |
| The charge of 2 annas per lb. for the iron work provided is not sufficient ; the correct quantity is 11,782 lbs., and 3½ annas would be about the price per lb. (Rs. 6-2-0 per maund) . . . . .  | 2,565    | 0 | 0 |
| There are no data in this office to show what the cost of a double purchase crab is likely to be ; perhaps Mr. Gerrard obtained the price from the Dockyard or Gun Carriage Manufactory . . . . .  | 960      | 0 | 0 |
| Carried over. . Rs.  | 8,09,589 | 0 | 0 |

|  |          |   |   |
|--|----------|---|---|
| Brought over. . Rs.  | 8,09,589 | 0 | 0 |
| The charge for the $\frac{7}{8}$ chain is about right ; a fathom of it will weigh about a maund, and 96 fathoms, at Rs. 7 per fathom, will be . . . . .  | 672      | 0 | 0 |
| The charge for the tenders for docks appears about correct—Rs. 2 per cubic foot, including squaring and fitting with bolts; and 6,806 cubic feet of timber complete, at Rs. 2, gives. . . . .  | 13,612   | 0 | 0 |
| There is nothing in the plans to show how the large quantity of cast-iron is to be applied to the tenders. The weight deduced from the cubic inches is correct, and Rs. 120 per ton may cover the price, if sent from England ; 117 tons, at Rs. 120.  | 14,040   | 0 | 0 |
| The charge for wrought-iron work will be, as before, $3\frac{1}{2}$ annas for 61, and for 9 tons 16 cwt. and 3 qrs., or 22,036 lbs. [the equivalent in lbs. of 9 tons 15 cwt. 3 qrs. is 21,924, and not 21,841] . . . . .  | 4,820    | 0 | 0 |
| The size of the ring-bolts is not given, but, bearing other charges in view, they will probably cost Rs. 20 each, and not Rs. 12 ; this for 20 will give .   | 400      | 0 | 0 |
| The charge for the breakwater is enough, Rs. 4 per 116 cubic feet of rubble stone ; the two breakwaters are together 2,101,200 cubic feet, and cost  | 72,455   | 0 | 0 |
| It is probable that a large quantity of this rubble may be obtained from the excavation, by which means there would be a small saving, viz. the difference between Rs. 4 and the expense of filling in, minus the expense of removing the excavated rock to the site of the breakwater. The charge for puddling the back of lock and dock walls is too small. It will at least cost Rs. 2 per 100 cubic feet, having to be brought from the boats outside the dam to the walls when required ; 743,600 cubic feet of puddle, at Rs. 2, gives . . . . . | 14,872   | 0 | 0 |
| The charge for broken stone, including rolling and watering, is Rs. 6-4-0 per 100 cubic feet, and not Rs. 2 ; for 327,490 cubic feet it will be . . .  | 20,468   | 0 | 0 |
| Carried over. . Rs.  | 9,50,928 | 0 | 0 |



Brought over. . Rs. 9,50,928    0    0

The charge for the mooring stones, if they are to be half buried in the ground, appears enough, Rs. 1 per cubic foot, for 400..... 400    0    0

The total amount of estimate will be, according to the foregoing computation, Rs. 9,51,328, to which, if 10 per cent. be added for contingencies, the amount will be 10,46,460, and this amount will, I think, be required, and there are many omissions in this estimate .....Rs. 9,51,328    0    0

No provision is made for keeping the ground clear of water (1); no copper sheeting to the dock gates (2); the floor of the dock is represented with an invert arch of large stones, whereas facing is only charged for (3); some iron work is provided for sluices, but no sluices are provided for in the plan or estimate (4); neither are any struts provided for to brace up the dock gates, where a pressure of water may be on them (5); no sandstone is provided for the roadways (6); no provision appears to be made for rebuilding that part of the cremaillere work not comprised in the dock and locks, or to form a barrier between the reclaimed ground and the Mint premises (7); no provision is made for carrying off the water of the Mint ditch into the dock (8); or for providing a substitute for the large sewer which flows from the town under the Town Barrack necessary (9); or for carrying off the drainage of the town from the ends of the five iron pipes which cross the Mint ditch (10). The estimate is so *general*, the plan on so small a scale, with only two cross sections in 1,533 running feet, and no information whatever being given regarding the point from which measurements have been taken, that it is impossible to make a more minute comparison of the plans and estimates.

(Signed) J. J. F. CRUICKSHANK.

19th September 1855.

Carried over. . Rs. 10,46,460    0    0

|  |                     |                      |
|--|---------------------|----------------------|
|  | Brought over. . Rs. | 10,46,460 0 0        |
| (1) Double the charge for the proposed new dock<br>in the Dockyard . . . . .               | Rs.                 | 3,720 0 0            |
| (2) Copper sheeting. . . . .   |                     | 16,747 0 0           |
| (3) Paving floor of lock (deducting charge for<br>facing) . . . . .                        |                     | 6,292 0 0            |
| (4) Sluices, number unknown, say . . . . .   |                     | 1,000 0 0            |
| (5) Struts for dock gates . . . . .  |                     | 409 0 0              |
| (6) Sandstone for raised ground . . . . .  |                     | 10,006 0 0           |
| (7) Rebuilding cremaillere work. . . . .   |                     | 36,636 0 0           |
| (8) Drain for emptying Mint ditch into dock . .  |                     | 23,618 0 0           |
| (9) Carrying Town Barrack drain to basin . . .   |                     | 86,197 0 0           |
| (10) Town drainage from iron pipes to be carried<br>to the Town Barrack drain . . . . .    |                     | 3,342 0 0            |
| A dam will be required to keep out the water<br>from the north side of the works . . . . . |                     | 37,077 0 0           |
| Ten per cent. contingencies are included in<br>the above probable charges . . . . .        | Rs.                 | <u>12,71,504 0 0</u> |

(Signed) J. J. F. CRUICKSHANK.

20th September 1855.

(C).

MY DEAR WADDINGTON,—I have the pleasure to send the memorandum on Mr. Gerrard's estimate, with the probable amount for the missing items filled in. I do not think there is any probability of the proposed dam standing out for one monsoon.

Yours sincerely,

(Signed) J. J. F. CRUICKSHANK.

20th September 1855.

#### (D) Memorandum.

On a careful consideration of the advantages and disadvantages of the different sites proposed for the construction of wet and dry docks, with the requisite buildings, in Bombay, I am decidedly of opinion

that the one in the space comprised between the Arthur and Apollo Bunders is the best in every point of view ; and I venture to suggest that the whole of the ground now recovering from the sea to the westward of the Colaba causeway be included, the causeway to be removed, and that the road to Colaba should go in a line from the Cooperage along the Back Bay. This would give a magnificent space of ground, on which, should the project be carried out, works commensurate with, and worthy of the growing importance of the port of Bombay, might be executed.

2. It will, in my opinion, be essentially necessary that the rocky patch running off from the Arthur Bunder, marked in pencil on the plan thus <sup>^</sup>**v**, be included ; the sea wall, which I have sketched out roughly on the plan, to be carried round it from the Arthur Bunder in a curved form, which I think would be the best adapted for resisting the action of the swell in the SW. monsoon ; the entrance to the docks should be at the northern end.

3. The enclosing the rocky patch above mentioned will remove the greater part of Commander Daniell's objections, as it will be seen on reference to the plan that there is ample room, and deep water, available for anchorage and laying down the requisite buoys for transporting ships to and from the docks. As for the swell setting in during the SW. monsoon on the shore rendering it dangerous for ships to approach, I beg to say that, if proper precautions and means are used, I see no difficulty in docking and undocking vessels ; and I further beg to point out, that previous to the erection of the break-water at the Government docks, the same difficulties existed as far as regarded the swell rolling in, but which did not hinder the taking in and out ships requiring to be docked.

4. The greatest rise of tide observed at the Government Docks, on very high-water springs, has been 18 feet, but I should take the mean average at 16 feet to 16 feet 6 inches in the locality I have proposed for the wet and dry docks.

(Signed) C. W. ΜΟΝΤΡΙΟΥ, Commander I. N.,  
Master Attendant, &c. &c.

*Master Attendant's Office, 5th October 1855.*

(E) *Memorandum produced before the Committee on the 5th October 1855.*

*Arthur Bunder Docks.*

Estimate, Rs. 14,23,996.

Import dock, 1,740 feet by 200 feet ; 17 first class ships.

Export dock, 2,760 feet long, 13 first class ships, and 20 more to anchor in the middle.

About 145,000 cubic yards of rock excavation, and that close to the Colaba ground.

*Apollo Bunder Docks.*

Estimate, Rs. 15,64,827.

Import dock, 7 acres 3 fur., 3,615 feet long, would dock 17 ships.

Export dock, 11 acres 3·20 fur., 5,150 feet long, ditto 24 ditto.

A great deal of rock excavation in import and import bay docks (about 250,000 cubic yards).

*Moody Bay Docks.*

Estimate, Rs. 12,71,504.

Import dock, 1,070 feet long, 10 first class ships.

Export dock, 1,340 ditto, 12 ditto ; about 200,000 cubic yards of rock excavation.

The average depth of rock excavation is the greatest.

*Boree Bunder Docks.*

Estimate, Rs. 17,79,925.

Import dock, 4,020 feet long, 18 first class ships.

Export dock, 4,900 ditto, 22 ditto ditto.

Rock excavation about 346,000 cubic yards.

(F) *Boree Bunder.*

The latest survey by Commander Selby having proved that the approaches to a dock formed at Boree Bunder are too shallow for the entrance of large vessels without great expense in cutting a passage through rocks which were previously stated to have upon them four to five feet of mud, the constructing of docks upon that site is necessarily abandoned.

*Moody Bay.*

The space is quite insufficient for the trade of the port, unless that portion which is appropriated for the railway terminus be added to the site for the docks.

*Apollo Bunder.*

By extending a sea wall or quay from the pier, and forming the dock gates between the Apollo Pier and the rock shown in Selby's chart, and extending the sea wall or quay in a straight line to meet another quay extending from Arthur Bunder, docks sufficiently large for the present and prospective wants of the port could be constructed, with dry docks, and considerable space for quay and warehouse room; and if the railway can have a branch line formed with a neighbouring terminus, this site between the Apollo Pier and Arthur Bunder seems to have fewer difficulties than either of the foregoing sites at Boree Bunder or Moody Bay.

*South of Arthur Bunder.*

This site has no particular advantages either for construction or approach for shipping, and is too far from the Town and Fort to be recommended.

[Memo. by Mr. Heycock, given in to the Committee on the 5th October.]

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*Minute by the Right Honorable the GOVERNOR, dated the 19th October 1855.*

The President and Members of the Wet Dock Committee should receive our thanks for the care and attention with which they have so far discharged the duty committed to them.

2. It is to be regretted that Mr. Heycock's plan has proved to be of more difficult execution than was anticipated. I should prefer the site between Boree Bunder and Carnac Bunder to any other, if a sufficient depth of water could be obtained without incurring an amount of expense out of proportion to the advantages to be gained.

3. Major General Waddington's suggestions as Chief Engineer

are judicious, and will receive the attention of Government when further steps are being taken with respect to the construction of the proposed works, in whatever locality they may be carried out.

4. We should of course communicate the information contained in the Dock Committee's report of proceedings and its accompaniments to any Company inclined to undertake the construction of the docks.

5. It appears almost premature to consider as yet the several details and conditions of the control and management of the wet docks at Bombay, questions regarding which would arise from the formation of a Dock Company, until some specific overtures shall be made for the construction of docks.

6. In our letter to the Court of Directors reporting our proceedings on this subject, which should be accompanied by copies of all plans, &c. submitted to us, it may be well to inform the Court that the probability which exists that the projected works will be undertaken by a Joint Stock Company has prevented our proposing that the dock works (though essential to the improvement of the port, and, indeed, urgently called for by its growing importance) should be constructed at the expense of Government.

19th October 1855.

(Signed) ELPHINSTONE.

*Minute by the Honorable J. G. LUMSDEN, Esq., dated the 23rd October 1855.*

The proceedings of the Committee, including the appendix, and accompanied by copies of the plans, and, if practicable, by a reduced copy of Commander Selby's chart, ought to be printed, and rendered widely accessible to the public. Any feasible scheme for the construction of commercial docks, whether wet or dry, is likely, if carried into execution, to stimulate and promote the trade of this port, and should receive, I think, the support and sanction of Government if a Company could be found to undertake it.

2. It is to be understood that I deprecate, with Mr. Ritchie, any measure involving "the compulsory use of wet docks attended with heavy dock dues"; but if Government should have to deal with a Company which may be willing to embark its capital in the construction of docks on unobjectionable conditions, and upon any parti-

cular site, I should equally deprecate the arbitrary limit of its enterprise to a particular locality on any such plea as the greater or less expense of construction.

3. This is a subject for a commercial Company to take into its consideration, not for Government to deal with ; since the loss as well as the proper investment of their money is the Company's concern, while any expenditure of funds on such projects is certain to some degree and in some way to benefit the place, and should not, I think, be prevented, or even discouraged, on the strength of the faith which Government may repose on its own belief that the speculation will be a losing one.

4. Certainly, to express my individual opinion, Commander Selby's chart, with Captain Montrieu's memorandum, seem to establish that in respect of depth of water and of saving of expense in rock blasting, and also of warehouse and dock-room, docks between the Apollo and Arthur Bunders would be the most eligibly situated, and the cheapest. I nevertheless, upon the whole, consider the commercial advantages of the site selected by Mr. Heycock to be so superior to those of any of the other sites proposed, and I so entirely agree in the opinions expressed in the lucid memorandum (Appendix A) by Mr. Berkley, that had not Mr. Heycock (see Appendix E) given up the point, and admitted the superiority of the dock site between the Apollo and Arthur Bunders *to have been established by Captain Selby's chart*, I should have advised that, without prejudice to any scheme for constructing docks which might be hereafter proposed by others, we should inform Mr. Heycock that we would support his plan, by affording it every facility in our power, and by granting the site to a Company on his proving to us that the work would be prosecuted to a conclusion.

5. I must repeat, however, that I consider the inquiries embodied in this report and its appendix, by the Committee appointed by Government for the purpose of selecting the best site for wet docks, to be extremely valuable, and I do not think they should be lost sight of, as they will be if shelved in the Secretariat. They should be printed and published, so as to be available at all times and to all persons who may hereafter contemplate the construction of docks at this port as a profitable speculation.

(Signed) J. G. LUMSDEN.

23rd October 1855.

P. S.— I annex for record a valuable memorandum on this subject which I received some time since from Mr. Heycock, and which I think should not be lost.

(Signed) J. G. LUMSDEN.

*Memorandum by E. HEYCOCK, Esq., dated 2nd May 1855.*

For the establishment of a Dock Company in Bombay, two conditions are especially required from the Government,—*1st*, a grant of the land to construct the docks upon ; *2nd*, an Act, in the usual form, empowering the Company to levy dock dues upon all the shipping and goods entering the harbour of Bombay. To satisfy these conditions, the docks should be placed contiguous to the Fort and Town of Bombay, in a well sheltered position, and readily approachable with safety from the sea ; sufficiently capacious to receive the shipping ; and easily accessible by the railway. To these requisites, a large quay space and extensive ground-floor warehouse accommodation would be an inestimable benefit.

I submit that these conditions all meet in the site chosen for the docks at Borce Bunder :—*1st*, they are exactly between the Fort and Town ; *2nd*, the position is well sheltered ; *3rd*, the entrance to the docks would be in the direction of the ebb and flow of the tides, and is not obstructed with rocks ; *4th*, the docks would furnish more space than the trade at present requires ; *5th*, the railway runs close by the intended docks ; *6th*, by a removal of the soldiers' lines, and keeping the railway off the shore, as at present, extensive accommodation for ground-floor godowns or sheds, besides those along the quays surrounding the docks, can be erected, sufficient to store a very large portion of the goods brought to Bombay.

In order to obtain this space on shore, and to keep the railway from incommoding the traffic of the port by running the passenger trains too near to the docks, it is necessary that the intended site for the railway terminus in Moody Bay should be abandoned, and that the station should either be continued where it now is, or that it should pass through Fort George, and along the west side of Moody Bay, to a station to be formed near the back of the Mint (see accompanying plan). This would bring the station very nearly to the



centre of the Fort, and, by opening a good broad road between the Mint and the Castle, where there are no buildings to pull down, the traffic would at once pass into the Fort without inconvenience to the crowded parts. The sea front of Moody Bay would then be left open for the landing of coasting traffic, and for the new custom-house and warehouses.

It is not necessary that the <sup>\*</sup>custom-house should be close to the docks, but rather that it should be near to the offices of the merchants, and, at the same time, in the direction of the docks, so that a communication is easily kept up with the docks, and with the offices where nearly all the entries are filled up.

The ruinous state of Fort George, together with the additional fortifications which are contemplated in the harbour, will, it is to be hoped, allow of the removal of Fort George altogether, or at least allow of the railway being run through its enclosure. The railway terminus, if brought close to the Castle, would, by giving such increased facility to the transport of military stores to all parts of India, do more to give strength to the Government and security to the empire than Fort George could do if in the very best possible repair. In its present condition it can be no protection either to the Fort or shipping. It is, therefore, worthy the best consideration of Government whether an alteration in the line of railway, which is now so practicable, and of such evident benefit to the passenger traffic, and of the greatest necessity to the trade of the port, by allowing the whole shore from the south end of Moody Bay to be made available for quay purposes, should not at once be sanctioned before any expense be laid out upon the new terminus. The arrangements now to be carried out will have an enduring influence upon the commerce of Bombay ; for if shore space cannot be found to accommodate the trade of Western India at this place, when the railway is opened throughout the length and breadth of the land, some fresh port must be selected, where the facilities are greater and the restrictions less. To preserve the trade here, and make this place the *dépôt* for exports and imports, it will be eventually necessary that the whole of the ground to the east of Dobhees' Row should be set apart for commercial purposes, say for the use of the railway and docks. Such an arrangement would not abridge the open space of the Esplanade, for no one thinks of passing the Dobhees' Row for the purpose of exercise or recreation.

As railways are determined upon for India, it seems to be a necessity that commensurate preparations should be made to accommodate the increase of external and internal traffic which must follow the throwing open the interior to the advantages of export and import commerce. Already the Port of Bombay is too crowded, and the shore between it and the Town is the most accessible spot for the commerce by sea and land to meet upon; and if this space be wasted, by appropriating the shore to the use of the railway alone, the injury done to the place, to the railway, and to the shipping, will be irremediable.

The objections to Moody Bay as a site for docks are, that it is too confined to afford space to accommodate both docks and railway; and, if given up to the use of the docks only, there is not warehouse space to meet the increased trade which the opening of the railways must develope. It seems excellently adapted for a landing-quay for the coasting trade, and site for the new custom-house, and *passenger* station for the railway, otherwise it is not difficult of access, and is well sheltered.

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*Minute by the Honorable A. MALET, Esq., dated 24th October 1855.*

I have long deemed the question of wet docks in Bombay as affecting in a high degree the present welfare of the port, and as prospectively of even far greater moment.

2. The three great lines of rail now under contemplation converging in Bombay from the North-West Provinces, Calcutta, and Madras, with their various branches to the most productive districts of the interior, the construction of good roads to numerous boat harbours on our coasts, and the probable effects on produce of the revenue survey in the Bombay Presidency, may reasonably be expected to increase our exports and imports to an immense extent.

3. In this hope it seems to me that the wet dock accommodation should be supplied with no stinted estimate, and that the great importance of the proximity of the docks to the railway terminus should receive the fullest consideration.

4. There are four plans for wet docks now before Government: 1st, Boree Bunder, which, on account of the difficulties attending it, has been abandoned by its proposer; 2nd, Moody Bay, the accom-

modation in which is considered too limited ; *3rd*, between Apollo and Arthur Bunders, which is approved by the Committee ; *4th*, outside Arthur Bunder, condemned by the Committee as having no particular advantages to counterbalance its distance from the commercial portions of the Town.

5. The first and fourth of these appear to me to have been properly rejected ; on the third no remarks are required from me ; but on the second the importance of the subject induces me to venture to make some suggestions.

6. The necessity for ample room in the docks, and for easy railway communication between them and the railway terminus, are points undisputed. The absence of the former has, I believe (for the other objections are insignificant in comparison), led to the rejection by the Committee of the Moody Bay plan. If, therefore, by a modification of the present plans for the railway terminus and the Moody Bay docks, space for the latter can be provided without prejudice to the former, it seems to me that the desired objects will be gained.

7. With this view I beg to propose for consideration the construction of the railway terminus in the space between Carnac and Boree Bunders, and the appropriation of Moody Bay for the wet docks, with the necessary buildings, for all of which it appears from Captain Selby's survey there will be room, as the site may, though with increased expense, be considerably widened to seaward, while, if the railway terminus be removed, it can be lengthened as far as Boree Bunder.

8. It seems to me that by this plan all the necessities for wet docks will be provided ; the railway terminus will be in a better situation than at present contemplated ; and for the public, ample access to the harbour between the two premises will be maintained.

9. In conclusion, I would suggest that if no Company is ready to undertake the construction of the wet docks, it might be worthy of consideration whether it would not be profitable for Government to construct and maintain them.

*24th October 1855.*

(Signed) A. MALET.

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*Further Minute by the Right Honorable the GOVERNOR, dated 29th October 1855.*

Until I read Mr. Ritchie's memorandum I had never heard that there was an idea of making the use of the proposed wet docks compulsory. It seems to me that such an idea would be simply ridiculous. If the dock dues should equal the expense incurred by the delay and risk of loading and unloading ships in the open harbour, it would obviously be useless to construct docks at all ; but as the time of the large vessels employed in the trade of Bombay is as valuable as that of large vessels in all other ports, and as it would no doubt be very much economised by the facilities afforded by docks with warehouses in their immediate vicinity, there can be no reason why it should not be for the advantage of the shippers and ship-owners to make use of them ; and if it is for their advantage, it is clearly superfluous to make it compulsory to resort to the docks. With regard to the site of the proposed docks, I cannot quite agree with my honorable colleague, Mr. Lumsden, that this should be left exclusively to the consideration of the commercial Company which may be willing to construct them. As the site must be granted by Government, surely it is but fair that Government should have a voice in the matter. The Committee was appointed by Government purposely to ascertain what would be the best site.

They have reported in favour of one which I certainly should not myself have preferred, had it been possible to find another site equally well adapted for the purpose. The reasons which would have led me to prefer either Mr. Heycock's or General Waddington's sites are no doubt sufficiently obvious to my honorable colleagues. Neither of these projects would have interfered with the Esplanade, which is almost (if not quite) the only open space left for recreation and exercise in this populous island, nor would they have involved the contingency of intersecting some of our principal thoroughfares by a railway, which must, I fear, necessarily cross them upon the same level. These reasons lead me to hope that the suggestion offered by my honorable colleague, Mr. Malet, may be found practicable and easy of adoption. I venture to recommend that it be referred to the Committee, and that they should be requested to give it their best consideration. I think that the objections to the prolongation of the railroad along the Esplanade, and across the principal

thoroughfares in Bombay, may also be communicated to the Committee.

I entirely agree with my honorable colleague, Mr. Lumsden, that the proceedings of the Committee, and the valuable papers and plans by which they are accompanied, should be printed and published; they would form an interesting number of the Selections from our Records. I understand that there is every probability of a Company being formed to construct the docks as soon as the question of their site and the other preliminaries have been settled.

*October 29th, 1855.*

(Signed) ELPHINSTONE.

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*Further Minute by the Honorable J. G. LUMSDEN, Esq., dated  
5th November 1855.*

If Mr. Malet's plan be practicable, I think it a *very good* one, and shall willingly support a reference on the subject to the Committee.

On the other hand, if a commercial Company are to construct the docks and find the capital, I still think that it is not for Government to interfere in the selection of a site, unless upon military or political grounds, and I know of no material objections on such ground to any selected site. I think that we shall have no docks constructed by a commercial Company if we are to dictate to them on this essential point, and I believe that Government would consult the best interests of the public by supporting any feasible scheme which a commercial Company may propose *and engage to carry out*, be the site selected where it may. I also very much fear, from all I hear, that no commercial Company will engage to construct wet docks in the present state of matters, unless the use of them is made compulsory, to which I have a decided objection, or a dividend upon the capital expended be guaranteed by Government.

In the latter case Government would have an undoubted right to fix the site, though I should question the wisdom of their doing so in opposition to the opinions of the merchants or capitalists embarking in the undertaking.

*5th November 1855.*

(Signed) J. G. LUMSDEN.

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*Further Minute by the Honorable A. MALET, Esq., dated  
6th November 1855.*

I concur in the reference to the Committee ; at the same time I think the Commissioner of Customs might be requested to prepare a report, showing the expense of loading and unloading ships by boat at the different seasons, reduced to a rate on the ship's tonnage, and the length of time required ; and any other information which will, in his opinion, be of use in calculating the returns which may be expected from the docks. If he could estimate the cost of management, &c. in the docks it would be of advantage.

6th November 1855.

(Signed) A. MALET.

No. 1698 OF 1855.

PUBLIC WORKS DEPARTMENT.

To Major General WADDINGTON,

President of the Committee appointed to consider  
certain Projects and Plans for Wet and Dry Docks.

SIR,—Having laid before the Right Honorable the Governor in Council your letter No. 8, dated the 11th October last, with its accompaniments, consisting of copies of the proceedings of your Committee, with original papers, plans, and estimates, I am directed to communicate to you the following reply.

2. His Lordship in Council learns from the papers now submitted that your Committee have had four different localities under their consideration as sites for the proposed docks,—viz. 1st, the site proposed by Mr. Heycock between the Carnac and Boree Bunders ; 2nd, the site at Moody Bay ; 3rd, that between the Apollo and Arthur Bunders ; and 4th, the site between the latter bunder and Bummalow Island.

3. The first site, on account of the many difficulties it involves, has been abandoned by its proposer ; the second is not considered " sufficiently large for a general scheme of dock accommodation " ; the third has been approved by the Committee ; and the fourth, being disadvantageously situated in respect to the commercial town, has been condemned by the Committee.

4. As regards the first and fourth proposals, no remarks are deemed necessary by Government.

5. With respect to the second site, as the absence of sufficient space for efficient dock accommodation has led to the rejection of Moody Bay by the Committee, it has occurred to Government that it may be practicable, by a modification of the present plans as respects the railway terminus, to provide sufficient accommodation for the docks in the locality referred to.

6. With this view, I am desired to propose, for the consideration of the Committee, the expediency of removing the railway terminus to the space between the Carnac and Boree Bunders, and the appropriation of the whole of Moody Bay for the wet docks, with the necessary buildings, for all of which Government observe there will be ample room, as the site might not only be lengthened as far as Boree Bunder, but also, though with increased expense, be considerably widened to seaward if necessary.

7. Government are desirous of being informed of the opinion of the Committee on the plan above proposed, which appears to Government to offer many advantages. The railway terminus will be in a better position than at present contemplated, while ample access to the harbour would be permitted to the public between it and the proposed docks.

8. Regarding the third site, viz. that between the Apollo and Arthur Bunders, which has been approved by the Committee, I am desired to notice, as an objection to that locality, that should it be necessary to connect the docks by a tram or railroad with the railway terminus, and the commercial town, not only would some of the principal thoroughfares in Bombay be intersected, but the Esplanade, which is now almost the only space left for recreation and exercise in this populous island, would be seriously interfered with.

9. As soon as the question of the site of the proposed docks is determined, Government have resolved to have the proceedings of the Committee, and the valuable papers and plans by which they are accompanied, printed and published, so as to be available at all times and to all persons who may hereafter contemplate the construction of docks at this port as a profitable speculation.

10. In conclusion, I am desired to inform you that His Lordship in Council considers your suggestions as Chief Engineer to be judicious, and that they will receive the attention of Government when

further steps are being taken with respect to the construction of the proposed works, in whatever locality they may be carried out.

I have the honour to be, &c.

(Signed) H. YOUNG,

Offg. Chief Secretary to Government.

*Bombay Castle, 13th November 1855.*

No. 10 OF 1855.

From Major General C. WADDINGTON, C.B.,

President of the Committee appointed to consider  
certain Projects and Plans for Wet and Dry Docks,

To H. YOUNG, Esq.,

Offg. Chief Secretary to Government.

SIR,—In acknowledging the receipt of your letter No. 1698, of this date, referring to the Dock Committee certain proposals regarding the removal of the railway terminus to the space between the Carnac and Boree Bunders, and the appropriation of the whole of the Moody Bay for the wet docks and necessary buildings, I beg to bring to the notice of His Lordship in Council that an important member of the Committee in the consideration of any removal of the railway terminus, Mr. Berkley, has proceeded to England on furlough.

2. I request the favour of being informed whether Government propose to appoint a member in lieu of Mr. Berkley, or await his return, or whether I should assemble the Committee without him. The Committee, I may add, will be very incomplete without a representative of the Railway Company.

I have the honour to be, &c.

(Signed) C. WADDINGTON, Major General,

President of the Committee for Wet and Dry Docks.

*Bombay, 13th November 1855.*

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No. 1734 of 1855.

PUBLIC WORKS DEPARTMENT.

To the SECRETARY to the

GREAT INDIAN PENINSULA RAILWAY COMPANY.

SIR,—As Mr. J. J. Berkley, who was nominated by Government on the 21st March 1855 as a member of the Committee appointed to consider the project for wet and dry docks, has proceeded to England, I am desired to intimate that it is the intention of the Right Honorable the Governor in Council to request Mr. Ker to take Mr. Berkley's place in the Committee, if the Directors of the Great Indian Peninsula Railway Company have no objection to the arrangement.

I have the honour to be, &c.

(Signed) W. HART,

Secretary to Government.

*Bombay Castle, 17th November 1855.*

No. 1756 of 1856.

To Major General C. WADDINGTON, C.B.,

President of the Committee appointed to consider  
the Project for Wet and Dry Docks.

SIR,—With reference to your letter No. 10, dated the 13th instant, I am desired to inform you that the Right Honorable the Governor in Council has been pleased to appoint Mr. C. B. Ker to act as a member of the Dock Committee, in the place of Mr. Berkley.

I have the honour to be, &c.

(Signed) W. HART,

Secretary to Government.

*Bombay Castle, 22nd November 1855.*

No. 11 of 1855.

From Major General C. WADDINGTON, C.B.,

President of the Committee appointed to consider  
the Project for Wet and Dry Docks,

To W. HART, Esq., Secretary to Government.

SIR,—In compliance with the instructions conveyed in your letter No. 1698, of the 13th November, the Dock Committee again assembled on the 26th idem, including Mr. Ker, the new member appointed by Government in place of Mr. Berkley. Mr. Heycock, I regret to say, was absent from indisposition, but as the members of the Committee are of opinion that there is no necessity for another meeting, and that their resolution of the 26th September should stand, with the exception of one word—"unanimous"—which has been struck out of the last clause accordingly, I think it proper to submit their proceedings, signed by six of the members. The proceedings are accompanied by a letter from Mr. Ker, Chief Engineer Railway Company, and copies of two notes of dissent, one by Mr. Heycock and the other by Mr. Ker.

I have the honour to be, &c. •

(Signed) C. WADDINGTON, Major Genl., Chief Engineer,  
*Bombay, 3rd December 1855.* President Dock Committee.

*Proceedings of the Committee appointed to consider the question of the  
most eligible Site for Wet and Dry Docks in the Harbour of  
Bombay.*

*Bombay, 26th November 1855.*

Present,—

Major General WADDINGTON, C.B.

Commander C. W. MONTRIOU, I. N.

R. STRONG, Esq.

R. SPOONER, Esq.

C. B. KER, Esq.

J. PARSONS, Esq.

J. GRAHAM, Esq.

Absent,—

E. HEYCOCK, Esq.

Letter from Officiating Chief Secretary Young, No. 1698, of the

13th November, was laid before the Committee, and the feasibility of the scheme proposed by Government in the 6th paragraph of that letter discussed. The proposal of Government is to remove the railway terminus to the space between the Carnac and Boree Bunders, to appropriate the whole of Moody Bay for the wet docks, with the necessary buildings.

The objections to this scheme arise from the removal of the railway terminus, which would involve the following inconveniences :—

1st.—That the proposed site between the Carnac and Boree Bunders is 650 yards more to the north than that formerly assigned as a terminus on the ground reclaimed from Moody Bay, and, consequently, so much further removed from the Fort and from Colaba, though nearer to the Native Town.

2nd.—That ground reclaimed from the sea between the Carnac and Boree Bunders would be difficult of access to the railway, from its lying entirely on one side of the rail ; communication with it could only therefore be effected by turn-tables or back-points.

3rd.—That the now proposed terminus would not be in immediate contact with the wet docks, even if occupying the whole extent of Moody Bay.

In the 8th paragraph of Mr. Secretary Young's letter it is stated, as an objection on the part of Government to the site preferred and recommended by the Committee,—

“ That should it be necessary to connect the docks by a tram or railroad with the railway terminus and the commercial town, not only would some of the principal thoroughfares in Bombay be intersected, but the Esplanade, which is now almost the only space left for recreation and exercise in this populous island, would be seriously interfered with.”

In reply to this objection, Mr. Ker has explained to the Committee, that if certain precautions and restrictions were observed, the railway crossing the Esplanade might be left unfenced, so as in no degree to interfere with the free and convenient passage of the public. The precautions would be to lay the rails as nearly as possible even with the surface of the ground, to pave or macadamise the space between the rails, and to restrict the speed of locomotives to a moderate or even to a slow rate.

Under the preceding considerations, the Committee find it difficult

to give an opinion in favour of the project put before them in Mr. Young's letter. They are disposed again to recommend as most advantageous the adoption of the space between the Apollo and Arthur Bunders as a site for wet docks.

But they are further of opinion that, if the Moody Bay site be still preferred by Government, the arrangement formerly proposed by the Committee, of assigning the northern portion of the reclaimed ground as a railway terminus, and reserving the southern portion only for the wet docks, is really sufficient for all the immediate wants of the port of Bombay. The opinion of the Committee is that export docks are comparatively little wanted, and may, without inconvenience, be dispensed with, while for import docks and their necessary buildings the reserved space offers sufficient accommodation.

(Signed) C. WADDINGTON, Major Genl., President.  
C. W. MONTRIOU, I. N.  
R. STRONG.  
R. SPOONER.  
J. GRAHAM.

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From the CHIEF ENGINEER, Railway Company,  
To the COMMITTEE appointed to consider the question of the  
most eligible Site for Wet and Dry Docks in the  
Harbour of Bombay.

GENTLEMEN,—As Chief Engineer of the Railway Company, I have well considered the subject of railway goods station accommodation in connection with that for a general scheme for wet and dry docks, and having consulted with other officers of the Railway Company well qualified to give an opinion on such matters, I find that they agree with me in considering that, on the opening of the two main lines of railway into the Deccan by the Thull and Bhore Ghauts, which will probably take place before the construction of the docks, at least thirty acres will be necessary for the proper accommodation of the goods traffic at the Bombay terminus.

I also find, on referring to an old document now in my possession, that the late Mr. John Chapman estimated the extent of ground that would probably be required for goods at seventy-five acres; and from my experience of railways in England, very few of which carry even a

moiety of our estimated tonnage, I have no doubt but that in the course of a few years, when the resources of the Deccan have been in some measure developed, his estimate will not be found to be far wrong.

As the question of the position of the railway goods station, inseparable as it must be from that of wet docks, has been brought under the notice of your Committee, I trust that you will not fail to consider, before passing any resolution in favour of the Moody Bay site, how, in the event of Government assigning the space for wet docks as shown on the sketch, the railway passenger terminus (now only ten and a half acres) is to be conveniently and economically enlarged for goods when found necessary.

On receiving the permission of your Committee, I will, on a future day, offer a few suggestions on the subject of railway station accommodation in connection with that of docks.

I have the honour to be, &c.

(Signed) C. B. KER.

*Bombay, Railway Office, November 29th, 1855.*

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In accordance with Major General Waddington's expressed wish that I should state whether I concur in the resolutions adopted by the Committee on the 26th November, I have to state that I entirely dissent from the opinion expressed that "export docks are comparatively little wanted."

*29th November 1855.*

(Signed) E. HEYCOCK.

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I beg to record my dissent from any resolution of the Committee recommending, directly or indirectly, any site for docks "not sufficiently large for a general scheme for dock accommodation." (See 2nd clause of final resolutions 5th October.)

(Signed) C. B. KER.

(True copies)

(Signed) C. WADDINGTON, Major General,

Chief Engineer, President Dock Committee.

*27th November 1855.*

No. 1699 OF 1855.

PUBLIC WORKS DEPARTMENT.

To the OFFICIATING COMMISSIONER OF CUSTOMS.

SIR,—In connection with the question of the construction of wet and dry docks, which is under the consideration of a Committee of which you are a member, I am directed by the Right Honorable the Governor in Council to request that you will prepare and submit to Government a report showing the expense of loading and unloading ships by boat at the different seasons, reduced to a rate on the ship's tonnage, and the length of time required, and any other information which will in your opinion be of use in calculating the returns which may be expected from the docks. If you can estimate the cost of management, &c. in the docks, it would be of great advantage.

I have the honour to be, &c.

(Signed) H. YOUNG,

Secretary to Government.

*Bombay Castle, 13th November 1855.*

No. 1850 OF 1855.

PUBLIC WORKS DEPARTMENT.

From R. SPOONER, Esq.,

Offg. Commissioner of Customs, Salt, and Opium,

To W. HART, Esq.,

Secretary to Government.

*Bombay, Office of Comr. of Customs, Salt, & Opium, 13th Dec. 1855.*

SIR,—I have the honour to acknowledge the receipt of your letter

No. 1699, dated the 13th ultimo.

Cost of loading and  
unloading vessels in the  
port of Bombay.

2. In reply, I beg to state that I am unable to furnish the information required by Government, or, at least, am unable to give such full and perfect information as I should have wished to have done.

3. This department does not interfere in matters solely having reference to the cost of loading and unloading vessels, and, consequently, there is nothing procurable from the current or old records

of this office to guide me in procuring or extracting the information required.

4. On making inquiries from the several merchants, I still experienced great difficulty in procuring the required information, as there is no uniform system or practice adopted by them. One firm, perhaps, contracts for boat-hire alone ; another contracts for the goods being discharged from the ship, and landed on the wharf ; while another, perhaps, contracts for the removal of the goods from a ship to the depositing of them in the merchants' warehouses, including the cost of guarding them, &c. &c.

5. The points, however, on which I am required to give information are as follow :—

1st.—The expense of loading and unloading by boat at the different seasons of the year.

2nd.—The length of time required ; and

3rd.—Any other information which may be of use in calculating the returns which may be expected from the docks.

6. In reply to the first question, I would beg to state that the single item of boat-hire is 4 to  $4\frac{1}{2}$  annas per ton during the fair season, and  $6\frac{1}{2}$  to 7 annas during the south-west monsoon ; but there is a further expense in delivering to, and receiving from the boats.

7. I am informed by T. C. Cowie, Esq. (who has, I may here add, afforded me the greatest assistance in prosecuting my inquiries), that a contractor would undertake to bring goods all the year round from a dock, situated about where the custom-house now is, to his office, for  $6\frac{1}{2}$  annas per ton less than from a ship in the harbour to the custom-house, and thence to his office.

8. With reference to the second question, I would beg to state that the length of time required to unload a ship, say of 500 tons register, is about twenty to twenty-five days.

9. One-third or one-half of the time now occupied in unloading a ship in harbour would often be saved were she to deliver her cargo in dock to a dock company. Much of the delay now experienced arises from the system of each consignee sending for his own cargo.

10. Another advantage arising from the docks would be the impossibility of, or at least the great difficulties which would be thrown in the way of petty pilferage while the goods are being conveyed from the ship to the wharf. Again, the goods would be free from the

damage which now takes place, from wet, while in transit from the ship to the shore during the monsoon.

11. Adverting to the third question, I would beg to state that it is impossible at the present time to form any opinion as to what returns could be reasonably expected from the docks. A great deal must of necessity depend on the cost of docks, the rate of dock dues, and also whether the using of the docks, and payment of the dues, is optional or the contrary.

12. Mr. Cowie, who is no mean authority on such matters, states that the extreme estimate of benefits likely to be derived from docks is Rs. 1,11,530 per annum, and that to that extent only it would be fair to levy a tax on ships and cargo for using the said docks.

|               |          |
|---------------|----------|
| Imports . Rs. | 79,813   |
| Exports..     | 31,687   |
| Rs.           | 1,11,530 |

13. Whether Mr. Cowie's calculations are correct cannot at the present time be ascertained, or, indeed, until the whole work is completed, and all matters connected therewith fixed and settled. I beg, however, to submit extract from his communication to me (dated the 8th instant), as it contains much that is very interesting, and may eventually prove to be very useful.

I have the honour to be, &c.

(Signed) R. SPOONER,  
Offg. Commr. of Customs, Salt, and Opium.

*Extract Paragraphs 9 to 21 from a Demi-official Letter from  
T. C. COWIE, Esq., dated 8th December 1855.*

9. Having enumerated the advantages to be derived from the use of docks, it is necessary to point out that it is only a portion of the trade of the port to which these advantages attach.

10. It will be observed that the estimate of the saving of boat-hire is based upon the supposition that whether the ship be in harbour or in dock, the same extent of land carriage is necessary of the goods to be shipped or imported. But this applies to only a small part of the tonnage of the imports and exports of Bombay. Whenever goods can be stored or prepared for shipment in places having a water frontage, it is an advantage to make use of such places, as lighterage is found to be far cheaper than any land conveyance. The



most convenient ports in the world are those intersected by canals ; and although our harbour does not possess their advantages, it approaches during the fair season very near to them in the convenience and cheapness of transport which it affords. Many of our imports and exports consequently are landed at, and shipped from, such places (having water frontage), without being carried to the custom-house ; and in such cases for the most part the water conveyance from and to the ship would be availed of were she unloaded or loaded in dock, just as it now is while she lies in the harbour.

11. Among imports a large item is that of coals, the delivery of which in dock, if not prohibited as a positive nuisance, would be attended with inconvenience and extra expense, while grain, iron, and some other goods would probably derive no advantage from the docks.

12. Of the exports, I conceive that nearly, if not quite, the whole of the cotton and other produce, as hemp, wool, &c. shipped in pressed bales, would, on the average, be conveyed as cheaply from presses to a ship in harbour as to one in dock, and three-fourths of our export trade has until recently been in cotton and wool.

13. It would take some trouble to particularise the part of our trade which benefits by the use of the docks, but a few figures will show how large a proportion would not derive advantage from them ; and I give the following totals of the ship tonnage entered inwards and cleared outwards in the year ending 31st July 1855, with deductions for such portions of the trade as I conceive would derive no advantage. From the import tonnage I deduct, of course, ships in ballast, and also ships which come from Australia, Aden, and Kurrachee, with coals and country produce sufficient for ballast merely, also the tonnage required to bring the coals and iron imported. From the export tonnage I take ships in ballast, and that required for salt ; also what is taken for the conveyance of the pressed bales of cotton, wool, hemp, munjeet, &c. as follows :—

14. *Inwards.*

Square-rigged ships, about..... Tons 160,000  
Deduct—

Ships in ballast (tons 40,466) and ships from Australia,  
Aden, and Kurrachee, with coals and country pro-  
duce for ballast only, about..... 61,000

Carried over..... Tons 99,000

|  |             |
|--|-------------|
| Brought over . . . . .                     | Tons 99,000 |
| Import of coals . . . . .                  | Tons 20,500 |
| Of which from Australia . . . . .          | 1,400       |
|  | <hr/>       |
|  | Tons 19,100 |
| Which would occupy tonnage about . . . . . | 15,000      |
| Imports of iron . . . . .                  | Tons 7,000  |
| Which would occupy about . . . . .         | 5,600       |
|  | <hr/>       |
|  | 20,600      |
|  | <hr/>       |
|  | Tons 78,400 |

15. *Outwards.*

|   |              |
|---|--------------|
| Square-rigged ships, about . . . . .  | Tons 170,000 |
| <i>Deduct</i> ,—ships cleared in ballast . . . . .  | 13,500       |
|   | <hr/>        |
|   | Tons 156,500 |
| The exports of salt were 542,000 maunds (20,290 tons), which would occupy tonnage of about 16,000, and of cotton, wool, hemp, munjeet, &c. 480,000 bales, which would occupy 96,000 . . . . . | 112,000      |
|   | <hr/>        |
|   | Tons 44,500  |

16. There are many other articles of *import* besides those I have enumerated which would not benefit by the docks; and it is to be observed regarding the *exports*, that a large portion of such goods as would be with advantage shipped in dock composes a small part of the cargoes of ships otherwise cotton laden, and would, even were there docks, be sent to those ships whether they lay in dock or in harbour.

17. I consider, therefore, that the above figures might be further reduced, and that the proportion of inward tonnage benefited would be much less than half, and of outward tonnage than a fourth, of the whole.

18. Suppose, however, we take as much as 70,000 tons of import, and 40,000 tons of export tonnage, as likely to derive benefit from the use of the docks, and calculate the pecuniary saving which would be effected on those quantities, and the goods they would import and export: I suppose that of the imports one-half would be susceptible of the advantage of exemption from risk of damage and pilferage,

equivalent, on the average, to the saving in boat-hire. On the exports, probably, this would be an over-estimate, owing to the small value of seeds, one of the principal items.

19. Of the *import tonnage*, 70,000 tons of shipping  
would bring of cargo say ..... Tons 90,000

|  |                  |
|--|------------------|
| On which the saving would be boat-hire, &c. landing,   |                  |
| 6½ annas per ton .....   | Rs. 36,562       |
| Exemption from pilferage and damage in monsoon<br>on 45,000 tons, at 6½ annas.....                   | 18,281           |
| Saving of time to 100 ships of 700 tons each, at<br>Rs. 100 per diem, for 2½ days on the average.... | 25,000           |
|  | <hr/> Rs. 79,843 |

Saving on import cargoes, and ships, equal to Rs. 1-2-3 per ton of the ship's registered tonnage.

20. *Export tonnage*,—

40,000 tons would take of cargo..... Tons 52,000

|  |            |
|--|------------|
| On which the saving would be boat-hire, &c. shipping,                    |            |
| at 6½ annas per ton .....  | Rs. 21,125 |
| Exemption from risk of pilferage, &c., 26,000 tons, at<br>6½ annas ..... | 10,562     |

Saving on export cargoes ..... Rs. 31,687

Equal to 12 annas 5 pies per ton of the ship's registered tonnage.

|   |            |
|---|------------|
| 21. The aggregate of these sums, viz. on import ton-<br>nage and cargoes..... | Rs. 79,843 |
| Export cargoes .....  | 31,687     |
|   | <hr/>      |

Together.. Rs. 1,11,530

I conceive to be an extreme estimate of the savings which would be effected, and, consequently, the utmost which it would be fair to levy as a tax on ships and cargoes for the use of the docks and their wharves for import and export.

(True extract)

(Signed) R. SPOONER,

Offg. Commissioner of Customs, Salt, and Opium.

*Minute by the Honorable J. G. LUMSDEN, Esq., dated the  
20th December 1855.*

I am disposed to concur with the Committee in still preferring the site between the Apollo and Arthur Bunders for wet docks.

Any scheme for dock accommodation at this port should be complete. I am quite of Mr. Heycock's opinion, that export as well as import docks are much required.

From Mr. Ker's letter and minute, and the 2nd paragraph of the Committee's proceedings of the 26th November, now submitted, it seems to me evident that there is a want of sufficient space at Moody Bay even for the proper accommodation of the goods traffic at the railway terminus when, in the course of not many years, the rail extensions have been carried into the heart of the country.

And finally, I look upon the great expense of excavating at Moody Bay, which will be found essential, should docks on a large scale be there constructed, as a strong argument (independent, too, of the greater area for warehouses and accommodation between the Apollo and Arther Bunders) in favour of the latter locality.

The objection to a rail or tramway across the Esplanade has been in some degree met by Mr. Ker's explanation to the Committee.

Taking the various difficulties in respect to the selection of *a good site* into consideration, I think that, without overlooking the importance of the objection just referred to, there are fewer to be encountered in the construction of docks in the site preferred by the Committee than are inseparable from any other scheme; while there is one most important advantage in working between the Apollo and Arthur Bunders, that is possessed by no other site, and for which no other advantages which other sites may possess can in my opinion compensate,—I mean a natural basin of deep water, and a natural reef or ramp of rock outside of it, admirably suited for forming the base, and supporting the foundations of quays and piers to seaward.

I fear, however, we are losing time in these discussions, at least until there shall be found a Company proposed to undertake the work.

(Signed) J. G. LUMSDEN.

P. S.—Since I wrote this I have seen Mr. Spooner's letter of the 15th of December, with the accompanying extract from a letter by Mr. Cowie.

These papers do not alter or affect my opinions on the general question, though what Mr. Cowie says specially of lighterage and water frontage of the goods which would not benefit by being shipped or unshipped at docks, is certainly in my view unfavourable to the project.

(Signed) J. G. LUMSDEN.

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*Minute by the Honorable A. MALET, Esq., dated the  
27th December 1855.*

I regret that I am unable to acquiesce in the Committee's opinion, that the site proposed for the Apollo docks is preferable to that for the Moody Bay docks.

The main objection to Moody Bay was want of room, otherwise the site was apparently considered by the Committee as preferable to any other : the respective areas at Apollo Pier and Moody Bay may, it seems, for rough measurement, be taken at about fifty and forty-five acres, taking in at Moody Bay all that is possible, up to the projecting portion of Fort George.

If the latter site be preferable to the former, excepting only on account of want of space, it hardly seems to me that so small a difference should weigh down the balance against it.

With reference to the provision for the railway terminus, it is evident from Mr. Ker's letter that he was not aware of the proposal to give up so much space for it : a rough measurement would give about fifty acres as available for recovery from Carnac Bunder to the limit of that to be given to the docks, leaving a road between them for public access to the sea ; and the objection of the Committee as to the site being on one side of the line of rail would easily be met by a slight encroachment on Carnac Bunder merely. An easy curve would bring the rail into a convenient position ; while, if an extension of the line to Colaba be at any time necessary, it will be considerably shorter than from Moody Bay ; it would cross the Esplanade in the same line as now contemplated by the Committee, while it would only have to accommodate the Colaba trade ; whereas if the Apollo docks be constructed, nearly the whole import and export trades of the port will be forced upon it.

I concur in the Honorable Mr. Lumsden's opinion that both export and import docks are required ; and though I would not, under

the anticipation which may be fairly urged of the increase in the trade of this port, confine my expectations of dock returns to anything like Mr. Cowie's calculations, they deserve great weight in showing how necessary it will be not to incur any avoidable expense, and to give to docks the greatest advantages of contiguity to the railway terminus.

(Signed) A. MALET.

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*Minute by the Right Honorable the GOVERNOR, dated the  
2nd January 1856.*

I regret that I am unable to concur with the Wet Dock Committee in preferring the site between the Apollo and Arthur Bunders to that which was suggested by my honorable colleague Mr. Malet. The former report of the Committee stated that "the site at Moody Bay is not sufficiently large for a general scheme of dock accommodation, although it might suffice for import docks only. From the estimates before the Committee it appears that the cost of construction at Moody Bay would be much more considerable, in proportion to the accommodation afforded, than at any other site. The site is in all other respects most eligible."

In order to meet the only objections which are here stated to exist against the Moody Bay site, it was proposed by my honorable colleague that the whole space which is to be taken in at this spot should be given up to the docks. The Committee have not favoured us with any information as to the extent of additional accommodation which would thus be afforded, nor as to the effect which this alteration would have upon the proportionate cost of constructing docks on this site. They have confined themselves to three objections, all of which are connected with the second part of my honorable colleague's suggestion, viz. the site of the railway terminus, which he proposed should be on the spot originally selected as a site for docks by Mr. Heycock, viz. the space between Carnac and Boree Bunders.

The first objection is that the railway terminus will be 650 yards more to the north than that formerly assigned for it on the space to be reclaimed from Moody Bay,—consequently, so much further removed from the Fort and from Colaba, although so much nearer to the Native Town.

I confess myself quite unable to discover the force of this objection.

The site of the terminus on the Colaba or south side of the Fort, which is preferred by the Committee, is further from the Fort than the Moody Bay site ; but this was not considered a sufficient reason for preferring the insufficient accommodation which that site, when divided between the docks and the railway terminus, would have afforded ; neither was it deemed any argument against the Apollo and Colaba Bunder site that it was at least half a mile to the south of the Native Town. In comparing the two sites, it would have been fairer to have contrasted the difference in distance between the Fort and the site approved by the Committee with that between the Fort and the site suggested by Government, than between the latter and the rejected site at Moody Bay, which is certainly more immediately contiguous to the Fort than either of the others.

The second objection, that the proposed site for the railway terminus between the Carnac and Boree Bunders would be difficult of access from the railway from its lying entirely on one side of the present line, and that communication with it could only be effected by turn-tables or back-points, is not, apparently, suggested or concurred in by the Railway Engineer, and can hardly, I think, have been sufficiently considered by the Committee. It appears to me, as I perceive it has occurred to my honorable colleague Mr. Malet, that the communication might be effected by a branch rail of no great length, and of a very easy curve.

The third objection, that the now proposed terminus would not be in immediate contact with the wet docks, even if *occupying* the whole extent of Moody Bay, would be a valid one if it were insurmountable. I regret that I have not got the plans with me to refer to ; but I was under the impression that the space to be reclaimed at Moody Bay extended to the north as far as Boree Bunder, while the proposed site of the railway terminus commenced at this point. If I am mistaken, I should like to be informed whether there would be any difficulty in connecting the space to be reclaimed at Moody Bay with Boree Bunder. If there is no apprehended difficulty in doing this, this objection falls to the ground.

There is one more point to be noticed. When we are considering the objections to Mr. Malet's plan, Mr. Ker has stated that as soon as the Bhore Ghaut and Thull Ghaut lines are fully opened to goods traffic, at least thirty acres will be required for the accommodation of this traffic at the Bombay terminus, and that the late Mr. Chapman

estimated the extent of ground that would probably be required at no less than seventy-five acres : but in this respect the space between Carnac and Boree Bunders has, it appears to me, an advantage over every other site ; for in the first place my honorable colleague states that at a rough estimate it contains about fifty acres ; and in the next, it is capable of extension on both sides—either by giving up the space now occupied by the sepoy lines, or by taking in more ground from the harbour ; but I apprehend that fifty acres would be sufficient to accommodate the goods traffic, without any necessity for taking in more ground. I cannot express too strongly the objections which I entertain to an unfenced railway running along the whole length of the Esplanade, and crossing, on a level, the principal thoroughfares in the island : when I think of the crowds that congregate every evening upon the Esplanade, and of the immense traffic upon the two principal roads which it must intersect, I cannot but anticipate inconvenience and danger from a railway such as the Committee recommend. If it is determined to adopt their recommendation as to the site of the wet docks, I trust that some plan may be devised for carrying the railway to the south of the Fort without these most objectionable features.

(Signed) ELPHINSTONE.

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*Further Minute by the Honorable J. G. LUMSDEN, Esq.,  
dated 13th January 1856.*

The Right Honorable the Governor observes that “ it was not deemed any argument against the Apollo and Colaba site that it was at least half a mile to the south of the Native Town.”

It is probably, as he has stated in a pencil note, considerably more than half a mile.

But the Committee, I imagine, did not consider the distance to *the south* an objection, since there could be stations at the Fort gate and the Native Town ; and it is obvious that the further a line of rail extends through the length of a long narrow island like this of Bombay and Colaba, the more is the public convenience consulted.

Moreover, the chief staple which it is expected will be brought to the coast by the rail is cotton : of this the greater part must be taken to Colaba, and pressed and shorned from thence wherever the terminus may be.



I am informed that it was the Railway Engineer, Mr. Ker himself, who suggested the second objection to the Committee: any branch rail of no great length, and of an indispensably easy curve, such as that suggested by the Honorable Mr. Malet, leading into the land proposed to be recovered to the south of Carnac Bunder, *must cut through* that bunder; and, if Government will agree to the enormous expense\* of purchasing this property, which will thus be destroyed, of course it can be done.

As to the third objection, I concur in the remarks of the Right Honorable President: a line of rail might be laid down to communicate with the docks on construction in the site proposed at Moody Bay; and wherever the docks may be placed, there will probably, in time, be such a rail.

The remarks of our Right Honorable President to the effect that, as regards extension, the space between Carnac and Boree Bunders has an advantage over every other site, appears to me to be open to the following objections:—

1st.—If you take more ground from the harbour in that neighbourhood, you destroy the main access to Carnac Bunder.

2nd.—The ground required for a railway terminus should be an oblong; as I am informed breadth, without length of area, is of little use here. A terminus so placed would be at once the most difficult, expensive, and dangerous to work.

I fully participate in our President's objections to an unfenced rail level with the Esplanade, and carried across it. But I am unable to perceive such strong objections to a level railing, protected by a light, and, if you please, an ornamental fence, the main lines of road forming the level crossings.

I have, in conclusion, no more to add than to repeat my conviction, that whether the railway terminus be at Moody Bay, as originally determined on,—and it seems there would be no more ground recovered in that quarter than will be found necessary hereafter for such a terminus,—or whether the terminus be placed at Colaba, where any quantity of ground can be recovered, both lengthways and breadthways, towards Back Bay, without great expense or difficulty, the Committee have shown that there is no site so fit for export and import docks

\* For a portion only of the *Clare Bunder*, with warehouses, compensation of Rs. 1,71,390 was paid.

together as that preferred by them between the Apollo and Arthur Buiders.

(Signed) J. G. LUMSDEN.

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*Further Minute by the Honorable A. MALET, Esq., dated the  
14th January 1856.*

I have no wish to make any further remarks.

(Signed) A. MALET.

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*Further Minute by the Right Honorable the GOVERNOR, concurred in  
by the Honorable Messrs. LUMSDEN and MALET, dated 19th  
January 1856.*

In order that the Board may thoroughly understand the proposal before us, I recommend that a plan of the whole locality be prepared, showing the site of the railway terminus and docks suggested by my honorable colleague, Mr. Malet, and that of the terminus and docks at the Apollo Bunder. This will show at a glance the merits and demerits of each plan. The soundings in the neighbourhood of each site of the docks should be entered in the plan from Captain Selby's chart.

(Signed) ELPHINSTONE.

„ J. G. LUMSDEN.

„ A. MALET.

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No. 278 OF 1856.

PUBLIC WORKS DEPARTMENT.

To Major General WADDINGTON, Chief Engineer,

President of the Dock Committee.

SIR,—In considering the correspondence which closes with your letter No. 11, dated 3rd December 1855, the Members of Government have experienced considerable difficulty in forming an opinion as to the comparative eligibility of two of the sites suggested for export and import docks,—whether it would be more advantageous that the docks should be constructed between the Apollo and Arthur Buiders, with a tram or railroad, either across the Esplanade or through the Fort, to connect them with the railway terminus, which in this case

would be constructed at Moody Bay, as hitherto intended, or that the whole of Moody Bay should be given up for the docks, as much land as may be necessary for the railway terminus being reclaimed from the harbour between Moody Bay and Carnac Bunder, or partly provided by an alteration of the sepoy lines; the railway terminus and docks being, in this case, contiguous to each other, and also connected by rail.

2. To enable the Governor in Council to decide on this point, he requires more detailed and comprehensive information than is now before him. He will, therefore, be obliged by your having a plan prepared, which will embrace the space between the north side of Carnac Bunder and the south side of Arthur Bunder, exhibiting the present line of railway, and the mode in which the ground contiguous to it is occupied; with the whole of the thoroughfares in the Fort and on the Esplanade which might possibly be affected by either scheme. The plan should also show the quantity of land which might be reclaimed for railway purposes, and the space which could be made available for docks at either site, with the best mode of appropriating it so as to provide for both export and import docks. The best line of communication between the docks and railway terminus, in either case, should also be shown.

3. I am further directed to request that you will let the soundings of the harbour at the entrance, and in the approaches of each dock site, be entered on the plan from Lieutenant Selby's survey.

I have the honour to be, &c.

(Signed) W. HART,

*Bombay, Castle 13th February 1856.*

Secretary to Government.

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No. 2 OF 1856.

PUBLIC WORKS DEPARTMENT.

From Major General C. WADDINGTON, C.B., Engineers,

President of the Dock Committee,

To W. HART, Esq.,

Secretary to Government.

SIR,—In compliance with the instructions contained in your letter No. 278, of the 18th February, 2nd paragraph, I have prepared

a plan in duplicate of the ground from the north of the Carnac Bunder to the south of the Arthur Bunder, showing the present line and terminus of the railway, the thoroughfares of the Fort and Esplanade, and the soundings taken by Captain Selby in that part of the harbour which adjoins the shore within the abovementioned limits.

2. On one of the plans are delineated in red ink—*1st*, the outlines of the ground to the south of Carnac Bunder, which I would propose to make over to the Railway Company, with a view to its recovery from the sea, and appropriation as a suitable and convenient terminus,—the space so to be gained, with the railway forming its western boundary included, would be more than forty acres; *2nd*, import and export wet docks at Moody Bay, with custom-house and bonded warehouses. Each of these docks is calculated to receive from seventeen to forty-six vessels of large size, according to the number of tiers (from one to three) ranged along each wharf. The access to these docks is protected by a breakwater running from the south bastion of the Castle, and advantage is taken of this shelter to provide an ordnance wharf on the harbour front of the Castle; *3rd*, a continuation of the railway through the Fort to Arthur Bunder at Colaba. A width of 30 feet for a double line of rails is allowed throughout the Fort, and 40 feet elsewhere. The new flight of steps at Borce Bunder, and the arched way for boats leading to the bunder, are not interfered with in this plan. A redoubt at the north-east angle of the export dock, and an open battery under the east bastion of the Castle, are provided for the protection of the docks and terminus. A slaughter-house and necessities, with the requisite approaches, are to be built in lieu of those which must be removed at Carnac Bunder, and for the accommodation of the present frequenters of Moody Bay. They are carried out in the plan into deep water.

3. The second plan exhibits the mode in which wet docks, with custom-house, and bonded warehouses, might be disposed between the Apollo and Arthur Bunders. I have described in this plan an extensive breakwater from the Gun Carriage Manufactory to the Dolphin Rock. Adjoining the latter a heavy battery might be advantageously placed for the defence of the harbour. For the protection of the docks a redoubt is provided near the entrance. These breakwaters will, I believe, be found necessary to secure still water for the ships before entering the lock. I have not thought it necessary to designate the "railway terminus" in this scheme further than by

writing those words on the ground to be recovered at Moody Bay. The line of railway to Colaba is nearly the same as in the first plan.

4. With reference to the relative advantage of either of these two projects, I believe that by the location of the docks at Moody Bay less expense would be incurred, and that the access for ships would also be more convenient. The site of Moody Bay is also more central for the commerce of the place, and, therefore, better adapted for the custom-house and bonded warehouses, than the neighbourhood of Colaba. The latter site, however, has the advantage of offering more space for the stowage of bulky goods.

5. I do not profess to enter here into particulars of design, and construction of these proposed docks. I shall state, generally, that the lock of entrance is made 270 feet long, and 56 feet wide, which would admit the largest ship that has yet entered this port, and I propose that the sole of the docks should be 10 feet below low-water mark of spring tides, which depth would also float such a ship with her cargo at high-water. The number of merchant ships at this time in the harbour is, I am informed, sixty-one. For the admission of steamers no provision is made. To admit them, greater width and length must be given to the entrance lock, but the depth of the docks would be ample.

I have the honour to be, &c.

(Signed) C. WADDINGTON, Major Genl. Engineers,  
President of the Dock Committee.

*Bombay, Office of Chief Engineer of Public Works,  
30th April 1856.*

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No. 1273 OF 1856.

PUBLIC WORKS DEPARTMENT.

To the PRESIDENT OF THE DOCK COMMITTEE.

SIR,—I am directed by the Right Honorable the Governor in Council to acknowledge the receipt of your letter No. 2, dated 30th April 1856, and of the two comprehensive and valuable plans which have accompanied it.

2. His Lordship in Council has decided that of the two proposed dock sites, regarding the superior eligibility of which some doubt existed, that which your plan shows to be available at Moody Bay

is preferable, and he directs that it be kept available for the construction of a custom-house, warehouses, and docks, to be constructed on the general plan submitted by you, which, however, he wishes to be amended in two particulars, which will be noticed below.

3. The site proposed by you in the same plan for the railway terminus is approved of by Government; but the Governor in Council considers that the spot left unfilled in the plan between the proposed terminus and the export dock should also be filled in; the terminus being extended towards the docks so far as to leave only a commodious road between them from the "new road" to the sea wall, where a quay for small craft should be formed, instead of the Boree Bunder and its arched approach, the use and existence of which would thus be done away with altogether.

4. In carrying out these alterations would be involved the amendment to which allusion is made above at the close of my second paragraph, namely,—

1st.—To alter the direction of the sea wall of the export dock as well as that of the railway terminus, by bringing both to coincide with a straight line drawn from the angle in the wall of the export dock, as planned by you, to a point on the road leading to the proposed new slaughter-house, about half way between it and the southern angle of the Carnac Bunder; and—

2nd.—To place the proposed redoubt as much further out as may be required.

5. The Right Honorable the Governor in Council intends to at once apply for the Honorable Court's approval of the above scheme, and for their permission to undertake the formation of the docks as a Government work, unless some company should be found willing to do so.

6. With this view, it will be necessary to obtain at least an approximate estimate of the cost of the whole undertaking; and I am directed to request that you will favour Government with your opinion as to how this may best be obtained.

7. I am further to request that you will be so good as to return to my office the plan of the Moody Bay docks and terminus (which accompanies this letter) altered as suggested in my 4th paragraph.

I have the honour to be, &c.

(Signed) W. HART,

Bombay Castle, 23rd May 1856.

Secretary to Government.

No. 3 OF 1856.

PUBLIC WORKS DEPARTMENT.

From Major General C. WADDINGTON, C.B.,  
President of the Dock Committee,  
To W. HART, Esq.,  
Secretary to Government.

SIR,—In compliance with the call made in the last paragraph of your letter No. 1273, of the 23rd May, I beg to submit a plan of railway terminus and docks laid out according to the instructions given in your letter. In consequence of the change in the direction of the outer face of the railway terminus and export docks, I found it expedient to shift the position of the redoubt to the salient angle of the outer faces, both of which it commands. By this arrangement the battery which in the former plan stood in front of the eastern bastion of the Castle may be dispensed with, and, as it is important to lighten expenses as much as possible, I have struck it out. In preference to altering the plan returned with your letter, a fresh drawing has been prepared.

2. In reply to the query addressed to me in the 6th paragraph of your letter, I have the honour to recommend that the Dockyard Engineer, Captain Wemyss, be called on to prepare the required plans and estimates. I think, with the assistance to be derived from Captain Selby's soundings and from the designs already prepared by Mr. Gerrard, there will be no serious difficulty in preparing an estimate sufficiently approximating to the probable cost of the works to enable Government to judge whether, in recommending the scheme to the Honorable Court of Directors, the expectation of a profitable return on the expenditure can be entertained.

I have the honour to be, &c.

(Signed) C. WADDINGTON, Major General,  
President of the Dock Committee.

*Bombay, Office of the Chief Engineer of Public Works,  
11th June 1856.*

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*Resolution of Government, dated 19th June 1856, on the foregoing Letter from the President of the Dock Committee.*

The plan now submitted by Major General Waddington should be lithographed, to be included in the printed compilation of correspondence regarding the docks, as the plan of docks and terminus approved of by Government ; but the proposed extension of the railway through the Fort should be omitted from the lithographed copy, as the question of such extension is one for future deliberation, and does not affect the determination of Government as regards the proper position for the docks.

2. Government approve of the suggestion contained in paragraph 2 of Major General Waddington's letter, and the Chief Engineer of Public Works should be requested to instruct the Dockyard Engineer accordingly.

\* \* \* The above resolution was communicated to the President of the Dock Committee, and the Chief Engineer of Public Works, under date 21st June 1856, No. 1559.

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SELECTIONS FROM THE RECORDS OF THE BOMBAY  
GOVERNMENT.

No. XXXIV.—NEW SERIES.

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OFFICIAL CORRESPONDENCE

ON THE

ABOLITION OF STATUTE

OR

FORCED LABOUR

IN SIND.



**Bombay :**

PRINTED FOR GOVERNMENT

AT THE

BOMBAY EDUCATION SOCIETY'S PRESS.

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1856.



# ABOLITION OF FORCED LABOUR IN SIND.

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No. 171 of 1856.

PUBLIC WORKS DEPARTMENT.

From Lieutenant-Colonel J. JACOB, C.B.,

Acting Commissioner in Sind,

To the Right Honorable LORD ELPHINSTONE, G.C.H.,

Governor and President in Council, Bombay.

*Dated 9th April 1856.*

MY LORD,—I have the honour to state, for the information of your Lordship in Council, that the annexed Summary was left by Mr. Frere in a state somewhat incomplete; but as it was evidently his intention that it should be submitted to your Lordship, and as the subject appears very important, I think it better that it should be forwarded in its present state.

2. Your Lordship is aware that no uniform system of Canal-clearances is acted on in the Province.

3. In the Hyderabad Collectorate, all canals, above a certain size, are cleared, or are supposed to be cleared, by the Officers of Government, and a water tax is levied to meet the cost. But owing to attempting to work at rates very greatly below the fair value of labour, much fraud and confusion has been there introduced.

4. False measurements were habitually used; the people were debased, disgusted, and defrauded; while the public revenue was frequently wasted to an enormous extent, and large sums were expended on clearing canals which yielded little or no return, and, at the same time, the most valuable and productive feeders were often neglected. Much improvement in these respects was introduced by Mr. Bellasis; but to bring matters to a healthy state, and to prevent enormous loss of revenue, an entire change of system appears

necessary. The statistics of Canal-clearances, &c. are much the same in the Kurrachee as in the Hyderabad Collectorate.

5. In the Shikarpoor Collectorate, only the main feeders have been cleared, wholly or partially, at the expense of Government and under Government superintendence. The Zemindars make their own arrangements for the clearance of their private canals, and with these no interference seems necessary. But in Upper Sind, also, "Statute" or forced labour is largely had recourse to, even when the work is superintended by Government Officers. In some instances these Statute labourers receive food, or some trifling money payment; in others nothing whatever is paid to them, though they may be kept at the work for months together.

6. I would respectfully observe that the question of the advantage or disadvantage of pressed labour appears to me to depend on those laws of political economy which are as well established as the truths of geometry. No disputed doctrines are involved in this matter. My own opinions on it are already set forth by Mr. Frere in paragraphs 9 to 16 of his Summary, and need not therefore be recapitulated by me. The principles on which I rested my arguments are, it seems to me, as self-evident as the axioms of the mathematician.

7. A great deal of what is inserted in this Summary as the opinions of various Officers on the matter, is apparently totally irrelevant to the subject, and appears only calculated to confuse.

8. All the real objections to the view of the subject taken by Mr. Frere and myself are disposed of in Mr. Frere's letter No. 3586, of the 13th November 1855, to the Collector of Shikarpoor, where he remarks as follows (*vide* Summary, paragraph 32 *et seq.*):—

"In the Narra Works you have an excellent example of the possibility of obtaining, and of working economically, a vast amount of free labour; nor has the difficulty adverted to by the Collectors, of ensuring a constant supply of such labour, been there shown in a way to render it hazardous to trust to such resources for large works requiring to be executed within a certain period.

"Lieutenant Fife's muster often fell off because wages elsewhere rose, while those he gave were stationary, and it was not convenient nor absolutely necessary to raise them. But there was no time when an increase of wages would not have secured an increase of labourers, and this is a remedy which is always applicable in any emergency."

9. The greatest public works which have ever been executed in the Shikarpoor Collectorate (*ex. gra.* the Beggaree Canal, &c.) are those executed under my own superintendence, as Political Superintendent on the Frontier ; and my experience in carrying them out exactly accords with the facts mentioned by Mr. Frere with regard to the Narra Works.

10. I have had many personal discussions on the subject of forced labour with Mr. Frere, and from them, as well as from what he has left on record, I know well that his ideas coincide with my own. The differences of opinion shown in the Summary now forwarded, appear to me to have been caused solely by want of study and of acquaintance with the general laws affecting the matters in question. To say with regard to such matters, that what may be right with respect to one part of a country might be wrong with regard to another, appears to be like asserting that though a triangle might have three sides at Hyderabad, yet at Shikarpoor it must have four.

11. Amid all the facts and opinions recorded in Mr. Frere's Summary, the natural laws and principles on which the truth of the matter depends are but little touched on ; yet it appears to me that they may be shown very clearly in a few words.

12. A certain amount of labour has to be performed by the inhabitants of a country in order to make that country productive. In the case of Sind, this labour is Canal-clearing, and such like irrigational works.

13. The amount of work to be done is the same in whatever form it may be represented or be brought to account ; its real value is always the same. And this must be taken from the people of the country in some shape or other, in whatever manner the work be performed.

14. It is evidently indifferent whether the actual work performed be called so many cubic feet of earth, so many rupees, or so many days of human labour. These all represent the same thing, and however reckoned, the work so represented requires ultimately the same amount of the capital existing in the country to be expended in its performance.

15. The capital of the country may be in this instance represented by the amount of labour available.

16. The arguments brought forward by me, and maintained by Mr. Frere, are to this effect : that paying a full and fair rate of wages

for the labour required—that is, paying such a price as might be sufficient to induce a full supply of labourers to offer themselves of their own accord—tends to make men work with greater power and energy ; to add to the number of men willing and able to work ; and thus to increase the capital, and necessarily, of course, the revenue of the country.

17. On the other hand, forcing men to work without pay, or with insufficient pay, disgusts them with labour ; drives them into idleness ; excites all manner of ill-feeling ; produces a very great amount of crime, disorder, and disaffection ; and thus destroys a great proportion of the capital, and, therefore, of the revenue of the country.

18. This question I would respectfully urge on your Lordship in Council as being one of the greatest importance. I have little doubt, if the matter should remain in the hands of Mr. Frere or myself, but that forced labour of every kind may gradually ere long be totally abolished in Sind ; but meanwhile, much evil may be, and must be, caused by the remains of such a system ; and I would therefore suggest that, inasmuch as many men bow to authority who are deaf to reason, it would be highly beneficial to the revenue, and to the country generally, if your Lordship in Council were at once positively to prohibit having recourse to Statute, or forced, or unpaid, or ill-paid labour, under any circumstances whatever.

19. It is evident that whatever drives that labour from employment, whatever induces idleness and weakens the productive energies of the people, must exactly, in like proportion, injure the public revenue. Twist and turn the subject as we will, the facts are as I have endeavoured to set forth, and in this, as in all else, the eternal law of Nature and of God holds true—that to be unjust is to be unwise.

20. The manner in which I would propose to carry out these principles is as follows :—

21. All canals, being main feeders, and generally such as have hitherto been cleared out by Government partially or wholly by means of forced or Statute labour, and the revenue returns from which show that it would be advantageous that Government should continue to clear, be henceforth cleared by hired or contract labour, paid for only at free market rates.

22. The work to be superintended by Government Officers, and paid for by measurement, a rate being at first assumed, such as may

be considered fair, and afterwards increased or decreased, as it may be found to affect the labour market on the spot.

23. The amount of available labour in the country, and of the work to be performed, must be generally nearly a constant quantity, so that the natural and fair rate of hire will very soon be ascertained. Little change will afterwards be found requisite, and estimates can then be prepared with certainty and precision.

24. I have found it an excellent plan to divide the work of excavation into small portions, such as five or ten rupees' worths, and to allow labourers to contract for the execution of one or any number of these portions within the required time.

25. Under this arrangement, a man and his family can get through a surprising amount of work, while the least possible amount of superintendence is required. Even the little children do something, while each member of the family works at any time of the day he pleases; and I have often observed the people continuing their task all night, relieving each other as they found convenient. This plan I would recommend for general adoption.

26. Wherever Statute labour may have been due for the clearance of canals, I would recommend the levy of a water rate on the lands irrigated; the rate being proportioned to the number of labourers which the Zemindars holding those lands have hitherto been compelled to supply.

27. Any Zemindars who may wish to clear their own canals without Government aid or interference, should be permitted to do so; and from them, of course, no water rate should be levied for lands so irrigated.

28. But whenever Government is called on to interfere in the work, the clearance should be executed in the same manner as that of the main feeders.

29. These rules appear to be applicable to every species of canal superintendence; and however the Canal Department may be arranged, the adoption of the above rules throughout the Province of Sind would, I think, meet every difficulty, and tend to abolish every abuse.

30. It nowhere appears that Government ever authorised the practice of seizing labourers and making them work without pay; but, on the contrary, it seems evident that Government supposed the amount estimated and sanctioned for Canal-excavations to have been a fair equivalent for the work to be performed.

31. The system of forced labour appears to be an abuse which existed under the Government of the Ameers, and which has been heedlessly allowed by the local Officers to continue since the annexation of Sind.

32. A monstrous idea seems gradually to have established itself in the minds of the Civil Officers, to the effect that whenever they fancied that more canal work ought to be done than the sum of money allowed by Government would pay for, they were at liberty to force the people of the country to execute such work without remuneration. But it is evident to me, that however such an idea may have arisen, the assumption of a right to force men to labour unpaid is, in this instance, as little supported by authority as by reason.

33. The fact of such a barbarous practice having existed under a rude Native Government can never suffice to justify its continuance under British rule ; while its ill effects, which now prove to be absolutely ruinous, must have been comparatively little felt under the Native Princes, for the simple reason that under the Native rule the whole revenue of the country, however drawn from the people, justly or unjustly, by fair means or by foul, was again expended among them, and thus capital was to some extent circulated, and though much injustice were done to individuals, nothing was lost to the whole community.

34. Under the practice which Mr. Frere and myself have been labouring to put a stop to, the estimates were never trustworthy ; the measurements were untrue ; and the rates of account were not those by which the work was really executed : the whole arrangement was as faulty and unsound as its results were evil.

35. In introducing a more healthy system, with work truly and fairly performed, accounted for, and paid for, it will doubtless be necessary at first to raise the estimates and the amount sanctioned for Canal-clearances ; but it is equally certain that the real cost to the State will be actually much less, because the work will be better done, and the people will not be impoverished.

36. Having now personally witnessed the ruinous effects of the old system throughout the Province, and being deeply impressed with the urgent necessity of its abolition, I have thought it necessary to follow up Mr. Frere's intentions, and at once to prohibit, in anticipation of the orders of ~~the~~ Lordship in Council. the use of forced



labour throughout Sind. I have done this as the only means of restoring productiveness to the country, and preventing a greater and still increasing loss of revenue to the State; and in so doing I trust that I shall receive the support and approbation of your Lordship in Council.

37. The amended estimates for the current season I propose forwarding as soon as they can be prepared.

I have the honour to be, &c.

(Signed) JOHN JACOB, Lieutenant-Colonel,  
Acting Commissioner in Sind.

*Commissioner's Office,  
Camp Beemun, Kurrachee Collectorate,  
9th April 1856.*

## SUMMARY OF CORRESPONDENCE RELATIVE TO STATUTE LABOUR.

On the 8th February 1855 the Commissioner in Sind circulated the following, on the subject of "Nerricks," to all Collectors and Officers in charge of Departments in Sind, stating that he had "received complaints, in various parts of the country, of Nerricks being published by authority, under colour of which all Government Departments exact supplies at rates much lower than the current bazaar rates of the place. Sometimes these Nerricks were the correct price currents of large market towns thirty or forty miles off, and no allowance was made for the carriage of articles which could not be got nearer than such market towns."

2. "The loss at one place," where the Commissioner made particular inquiry, "was so considerable and constant, that the Banians of all villages within ten or twelve miles had been obliged to divide the loss among themselves, by attending in turn to supply the want of a small post of four Policemen." A careful inquiry from both parties assured the Commissioner "that each Banian had to put up with a loss of two or three Rupees during his tour of compulsory attendance, besides several bad debts. The Mooktyarkar, instead of bringing the matter to the notice of his superiors

and getting the defaulters punished, recommended the Banians to pay the fees and bring a suit in his Civil Court."

3. The Commissioner observed that "all this was utterly opposed to the uniform and positive orders of Government," and he begged the "cordial and efficient aid of all the Officers under him" to put a stop to the practice; adding "that nothing would be more effectual for the purpose, than to make this point a constant subject of inquiry in the remoter part of their districts." He further stated that "the Kardar should see that the price current was correctly made out by the Mookhees or heads of the trading community. Neither the Police nor any other Government Department should have anything to do with the matter, beyond remonstrating through the proper channels when the price current does not state the real current bazaar prices."

4. The Commissioner enclosed a copy and translation of a notice, and requested that a copy of it, under the seal of the Collector and his Deputies, the Captain of Police and his Lieutenant, should be kept hung up on a board in a conspicuous part of every public Office and Outpost, including such as are named in the margin.

Kardar or Mooktyarkar and Tuffedar's Dhera; Thana of Police; Police Landee or Lock-up; and every other Public Office.

5. The Commissioner further ordered that a copy should also be pasted on cloth, and given to every head Zemindar, Patel, and Mookhee, with instructions to preserve it carefully; to show it to all who may wish to refer to it; and to report any instance in which its provisions may be infringed.

6. The Commissioner also stated that the above notice had been lithographed at Kurrachee, whence any number of copies that may be required would be supplied by the Deputy Collector in charge Sudder Station, at one rupee per hundred, the amount of which should be charged in a contingent bill.

*Notice (above alluded to).*

"It has been brought to notice that in many parts of the country Nerricks are published by authority, under colour of which all Government Departments and servants exact supplies at rates much lower than the current bazaar rates of the place.

"This is therefore to give notice, that Government strictly prohibits its servants, whether Europeans or Natives, on the establishment of

the Commissioner, the Collector, the Police, the Kardars, or any other Government Department whatever, from taking any supplies, however trifling, without paying the full price thereof. There is not to be one price for private individuals and another for Government servants. All are to pay the full current bazaar price of the day for everything they require.

“Any Government servant who may be found to have refused payment at such current bazaar rates for any supplies, however trifling, he may have received, will be made to pay, on the complaint being made known to superior authority, and will besides be liable to dismissal from the Service for breach of this order.”

7. The Commissioner further directed that copies of the above circular be forwarded to the Superintendent of the Indus Flotilla, Superintendent of Vaccination, Political Superintendent on the Frontier of Upper Sind, and Deputy Collector of the Thurr and Parkur, for information; adding to the two latter, that their districts, as far as the Commissioner could learn, were exceptions to the general rule in Sind, as the practice against which the above circular is directed did not, as far as he was aware, prevail there.

8. The Commissioner ordered 3,000 copies of the notice to be lithographed and supplied to Departments requiring them, at the rate mentioned in the last paragraph of the circular.

9. In reply to Commissioner's endorsement forwarding the above circular to him, under date the 23rd February 1855, Lieutenant-Colonel Jacob (Political Superintendent) observed, that the Commissioner was perfectly correct in supposing that no such practices were allowed in the Frontier district under his charge.

10. That “he had laboured hard for many years to inculcate on all around him the evil effect on all parties, even on those supposed to benefit by the arrangement, of interfering with market prices; and the great and certain advantages to the consumer, as well as the producer, of absolutely free trade.”

11. That he had “during a long series of years enforced absolute freedom for market prices in the bazaar of the Sind Irregular Horse with the happiest effect, notwithstanding that great opposition and prejudice had at first to be overcome. The supply of two strong Cavalry Regiments was equal to the transactions of a large town, so that the scale of the business has been sufficiently large, while it has been tried under a great variety of circumstances.”

12. "Whatever those circumstances might be," Lieutenant-Colonel Jacob "always insisted that every man should sell at whatever rate he chose to every one whatever, and that all purchasers should pay at those rates, even though the prices rose to a thousand rupees a seer for grain. The effect of this has been, that with the exception of a part of the period when we were at Hyderabad, where the proceedings of the Collector, Captain Rathborne, disordered all the natural relations of demand and supply, the bazaar has always been most amply supplied at the lowest possible rates."

13. He further stated that a proclamation, almost exactly similar to that now received from the Commissioner, had been already published by him throughout the district under his charge, a copy supplied to every Thana and Outpost, and to every Kardar, Tuffedar, &c. The proclamation now received will also be published as directed.

14. Lieutenant-Colonel Jacob further remarked, that "similar principles might, with the greatest possible advantage, be applied to the question of Statute labour. The present state of affairs in this respect is of enormous evil; it crushes every energy, and, more than all else, stops real improvement in the country. It reduces the peasantry to a species of slavery; *causes all labour* to be looked on as *an intolerable hardship*; and places it in the power of ill-disposed Zemindars to delay or to prevent the execution of all public works."

15. The remedy appeared to Lieutenant-Colonel Jacob "at once evident, simple, practical, and most readily applicable. Thus, a certain amount of labour for canals, or other public works, was due from certain villages or lands. This labour is evidently due from landlords of the villages or lands, who receive all the profits from them, in fact who own them and their produce.

"Let then the number of labourers which a landlord is bound to supply for any work, be engaged and regularly paid by the British Officers at the full market rate of hire, whatever it may be, each man receiving his hire personally; the amount, whatever it may be, to be recovered from the Zemindar from whom the supply of labour may be due."

16. This plan seemed to Lieutenant-Colonel Jacob "calculated to meet every difficulty. The labourer would not be cheated, and, at the same time, it would be directly for the advantage of the

Zemindars to keep the price of labour low ; and every effort and all fair means would be employed by them to induce the labourers to offer themselves for the work, and thereby keep the supply equal to the demand.

“ The labour market would soon assume a healthy state : the habit of free labour established, all odium would be removed from it ; all would endeavour to share in its profits, and labourers would be procurable in the greatest possible numbers, at the lowest fair rates, for all public works.

“ All parties must largely share in the profit of such an arrangement : its effect on the society generally would be like that of restoring a sickly and feeble body to vigorous health and strength. The actual amount of labour available, and the productiveness of the people generally, would become enormously increased ; for one willing and free working man will do as much as five or six Statute labourers, exactly as the vigorous and healthy individual can do five times as much work as one suffering from the languor of disease or famine.

“ At the same time the moral effects must prove unspeakably great : but they will readily suggest themselves, and it is perhaps unnecessary to enter on them.”

17. The Commissioner, on the 28th February 1855, forwarded copies of Major Jacob's foregoing letter to the Superintending Engineer, and the Collectors of Kurnachee, Hyderabad, and Slikarpoor, with a request that they would favour him with a figured statement, showing, as well as they could estimate in a general manner, the financial effect of acting on the plan recommended by Lieutenant-Colonel Jacob in all cases in which Government enforce the supply of Statute labour, adding any remarks which may occur to them on the subject.

### *Replies.*

18. The following are the replies received from the several Officers in Sind to whom the foregoing reference was made :—

19. Lieutenant-Colonel Turner, Superintending Engineer in Sind, on the subject of Statute labour submitted to his consideration, remarked (No. 884, dated 21st April 1855) that forced labour in some form obtains throughout Sind as regards Canal-clearance, excepting only in some parts of the Delta. In parts of Upper Sind, lately resumed

from Meer Ali Moorad, the labourer is wholly unpaid, either in money or in food ; and nothing can possibly be worse than the effects of such a system. The men thus employed are kept on the work for several months, and are expected to support themselves and families from the profits which they are supposed to have made from the previous year's cultivation. It is not at all surprising, he observed, that in these districts robberies are of frequent occurrence. In other parts of Upper Sind labourers receive no money, but are paid in grain, in quantity just sufficient to support themselves. In Central and parts of Lower Sind the rates of payment are fixed, which rates are equivalent to those formerly paid by the Meers. They are all, however, more or less below the value of free labour. There can be no doubt that all labour should be free, and were the work of Canal-clearance solely for the benefit of Government, the question of *Free versus* Statute labour would be a simple one ; but every canal digger has a personal interest in the work beyond that of his remuneration for canal digging, inasmuch as he is dependant on the Canal-clearance for his own supplies of food and water.

20. The cost of clearing already amounts to a large proportion of the revenue. Were this cost of clearing increased four-fold, as would frequently be the case, by the employment of free labour, Government could not be expected to bear the expense. Nor does it appear clearly that the proposition of Lieutenant-Colonel Jacob is a practicable one; whether the land is able to bear the cost of free labour.

21. Lieutenant-Colonel Turner observed that the whole question is one "of so much importance, and involved so many questions wholly unconnected with Civil Engineering," that he suggested for the consideration of the Commissioner, whether it would not be expedient, before making any change, to have the subject carefully investigated by those who are best able to form opinions thereon.

22. The Officiating Collector of Shikarpoor, Lieutenant Cowpar, in reply (No. 155, dated 10th April 1855) to the above, forwarded to the Commissioner in Sind a Memorandum containing the opinions of the Deputy Collectors of Roree and Larkhana, as also those of Major Stewart, on the subject which was submitted to them for their consideration. The figured statement called for was not supplied, because the Officiating Collector thought it inadvisable to carry out the proposal till after an experiment had been made on a small scale. He did not feel confident that a sufficient supply of free labour could

be obtained at the rates mentioned by Lieutenant Ford. Major Stewart, in his Memorandum dated 24th March 1855, admitted that the present system is objectionable; but thinks, under present circumstances, that it would be difficult to substitute a better. He stated that, in Lower and Central Sind, there are large bodies of men who have no other occupation than that of digging canals and making roads. They are itinerant labourers, from Kutch and the neighbouring countries; they are not agriculturists.

23. Their Muccadum is generally a man of substance, and has good credit in the country; and the system under which they worked was undoubtedly one of free labour. There is no such class of labourers in Upper Sind; every labouring man being a cultivator, and subject to the control of his Waderah, or head Zemindar.

24. Major Stewart, in the Memorandum (dated 24th March 1855) referred to by Lieutenant Cowpar, stated that "if a new canal had to be dug, or Bund to be erected, the only means of prosecuting the work with any certainty of completion within a given time, is to collect the agriculturist population through the agency of the Zemindars or District officials; and it has been the duty of the Collector, for the sake of the District revenues, to see that the people so collected are not detained beyond the season which admits of their cultivating their lands. So long as we demand a certain amount of labour from a village, it will be necessary to use compulsion, and the system complained of will be found to exist.

25. Major Stewart further observed, that the plan proposed by Lieutenant-Colonel Jacob contains no remedy, because compulsion is at the root of the evil. The Sherakut system, which, under the Ameers, prevailed in some parts of Lower Sind, resembled in many respects that now recommended by Lieutenant-Colonel Jacob: by this system the canals were cleared by the villages; the labourers' wages were paid for at the time by the Government; and on the reaping of the inundation crops the amount paid was recovered from the crops. The system substituted for this by the British Government was to take all canals, down to a certain standard, under its own charge; to clear them as much or as little as appeared necessary—all the smaller water-courses under the fixed standard being left to the Zemindars for clearance; and the cost of clearances was provided for by a uniform water rate on the land. The results, Major Stewart thinks, were that the trouble to the Government Officers was doubled, openings

to fraud were augmented, and the dissatisfaction of the people greatly increased. Although the current wages were paid, the system was disliked as much by the labourer as the Zemindar. He does not think that the system of Statute labour, if not abused, has so great a demoralising effect upon the people as is supposed. It is, he says, an arrangement by which the landholder and the peasant secure a supply of water, by which they are enabled to cultivate their lands, their relative shares of the produce being based upon it. He admits that it is objectionable in some points, but questions if a better could be substituted; one that would be more satisfactory both to the Government Officers and the people. Statute labour, Major Stewart continued, is not uncommon in some parts of the United States of America, and in Ceylon he is informed that it is reviving. In Sind it appears in its mildest form, as with the exception of the mouth of the Ghar Canal, the men have no long distance to go to labour beyond the limits of their own Talooka; nor are they employed on any work which does not yield them some immediate personal benefits; and whilst employed they receive from two-fifths to one-half the current rate of free labour wages, and are protected from the frauds of the much hated measurement system. Finally Major Stewart fears that were the present system abolished, there would be danger of not being able to secure a sufficient supply of free labour, and instances the case of the works on the Narra River, where free labour was employed, and where, he says, there was at one time as many as 6,000 men employed, and at another time not more than 50; and thinks it would be unsafe to trust the Collectorate revenues to such a chance until a better plan could be substituted.

26. Lieutenant R. Cowpar, Deputy Collector of Roree and Officiating Collector Shikarpoor, agrees (No. 60, dated 18th March 1855) generally with the views of Major Jacob, but doubts the practicability of obtaining a sufficient supply of voluntary labour; and instances the works at the Narra, Roree, and other places, where, although full rates of wages were paid, the supply of labour was insufficient. As the time for clearing canals is limited to four or five months, and the crops depend on their being cleared, it would be dangerous to trust to an uncertain supply of labour; and therefore, although he approves the abolition of the system, he would introduce the change gradually, beginning first with one canal and afterwards extending it to all: and he concludes by suggesting that



the Zemindars should be called to supply the required number of men, who should be paid daily, according to the market value of labour, by the Government Officers, and the amount so paid be charged to the land.

27. Lieutenant Ford, the Deputy Collector of Larkhana, is of opinion (No. 99, dated 5th April 1855) that were Statute labour abolished, and the Canal-clearances dependant on voluntary labour, that it would be necessary to offer double the present rate of wages to secure the required quantity; and he suggests that if the system be changed, it should be changed gradually.

28. The comparative cost of clearing a certain given number of canals by free and by Statute labour he gives as follows:—

|   |           |
|---|-----------|
| Actual cost of clearing a certain given number of |           |
| canals with Statute labour .....                  | Rs. 4,699 |
| Estimated cost of performing the same work with   |           |
| free labour .....                                 | „ 65,705  |

29. The number of persons who received the above Rs. 4,699 was 4,845, and the average length of time they were employed was about sixty-seven days.

30. In reply to the Officiating Collector's letter No. 155, dated 10th instant, the Commissioner requested (No. 1309, dated 17th April 1855) that the Collector would state where, and on what scale, he would recommend a trial of the abolition of Statute labour and the employment of free labour on the canals.

31. Lieutenant Cowpar, the Officiating Collector, in accordance with the Commissioner's request, recommended (No. 181, dated 24th April 1855) the selection of a second class canal for the experiment, which canal should be near a town where labour is plentiful, and where the work could be superintended by the Deputy Collector or the Kardar. Labourers should then be invited to the work at certain rates, and Darogahs appointed to inspect the work and pay the men daily, leaving it at the option of the Deputy Collector to pay for the labour either wholly in money or partly in money and partly in grain, and to report thereon on the completion of the work; and as soon as the account is made up, the villages and Zemindars should be called on to pay their respective shares of the expense. Should the number of volunteers be insufficient for the work, the Zemindars should be called on to provide each his quota of labourers, and the men so provided should be paid the wages of free labourers.

32. The Commissioner in Sind, in reply (No. 3586, dated 13th November 1855) to the correspondence ending with the letter No. 181, of the 24th April, from the Collector of Shikarpoor, requested the Collector to make a trial of the system proposed in Lieutenant Cowpar's letter above referred to, reporting the result.

33. He directed him further as follows :—That the aid of Government should be withheld in appointing Gomastas, until he had satisfactory assurances that the labourers would be properly subsisted by those for whom they worked.

34. That whenever anything beyond the ordinary clearance was required, the Collector should be careful that Government contributes its fair share of the expense.

35. That the Collector will observe from a copy of the Commissioner's letter to the Collector of Hydrabad which will be sent to him, that the Commissioner does not consider the practice as obtained in Lower Sind a model for imitation. In essentials it was the same as in Upper Sind, but less simple and equally oppressive.

36. That there are doubtless difficulties and risks attendant in a change of system, and the Commissioner does not wish to introduce any rash changes or to extend the sphere of Government interference : but he stated that Government was bound to see that where it forces men to work, that they are fairly paid ; and the Commissioner requested the Collector to impress upon his subordinates the enforcement of the above principle, despite of the difficulties besetting its observance.

37. That it was very necessary to enforce the rules which the custom of the country had for so long sanctioned, binding the parties who profit by Canal-clearance to furnish and pay for the labour required ; and which being a public necessity, inasmuch as to be of any use it must be applied at particular times and at particular places. But this necessity is no plea that the labour which Government enforced should not be properly paid for. The mode of payment, and the party on whom the burden should fall, will always be matters requiring great judgment and local knowledge to arrange, but *the labour must not be left unpaid* ; and the Commissioner felt assured that in a matter of such great importance, affecting the welfare of the people and the character of the Government, the Collector and his Assistants would devote their best energies to overcome the difficulties connected with the subject.

38. That the Narra Works was an excellent example of the possibility of obtaining and working economically a vast amount of free labour; nor has the difficulty adverted to by the Collectors, of ensuring a sufficiency of free labour for the completion of large works within a given time, been shown in this instance to be hazardous. Lieutenant Fife's muster fell off because wages rose elsewhere, while those he gave were stationary, it not being absolutely necessary to raise them. But were the wages increased, there was no time at which an increase of labourers could not have been procured, and this remedy is always applicable in any emergency.

39. That these principles are also applicable as regards Statute labour on roads, &c.; but not being of such pressing importance as Canal-clearance, there is less excuse for the continuance of any hardship which it is in our power to remove.

40. Copies of this letter were also transmitted to the Collectors of Hyderabad and Kurrachee for information and guidance.

41. The Acting Collector of Kurrachee, Major Stewart, in reply (No. 897, of 2nd May 1855) to the Commissioner's endorsement No. 727, of 28th February, forwarded reports from his Deputies, and observed, that as he had expressed his opinion in regard to the effects of the system in Upper Sind (vide para. 24 of this Summary), in which he thought Major Jacob's views of the question somewhat exaggerated and confined only to the abuses of the system, he did not think that further notice was now required from him in reference to the subject. But as he had lately had an opportunity of judging of the system pursued in other parts of the country, and which, being the most recent, may be taken to be the most approved, he hesitated not to say that the Upper Sind people, alluding particularly to the Zemindars, through whose agency the labourers must be obtained, would look upon its introduction as their greatest curse.

42. It has not been necessary for some years past, but the Statute labour system obtained in the higher portions of the Shikarpoor Collectorate, and might now be employed on any emergent work.

43. Major Stewart stated that when Colonel Scott's system, as carried out in Lower Sind, was about to be introduced into Sehwhistan, the people did everything in their power to avert a change. They viewed our then proposed system, with its host of Government officials and their power to annoy them with measurements, &c., with

dislike, and offered to purchase exemption by doing the whole work themselves, also to pay the water tax on every beegah of cultivation.

44. Major Stewart also observed that this instance of dislike to innovation was stated from personal knowledge. Major Jacob's plan differed from Colonel Scott's, but he did not see the remedies which he expected. It bears more equally than the other, which exacts a general water tax ; and upon this point Major Stewart again instanced Schwistan by way of example. At first, he said, for a year or two Government did not expend more than 800 Rupees annually in that district in Canal-clearances, and a water tax was unknown ; whereas we now expend about 3,000 Rupees, but levy 13,000 Rupees, and often much more, as water tax from the landholders.

44A. Major Stewart further remarked, that it is " unfair to the people of a district that their land should be taxed beyond their actual wants, and that the surplus, merely because coming under the head of water tax, should go to the Canal-clearances of other nearly uncultivated districts. If the land is capable of bearing it, it should form part of the Government rent, and this it will doubtless do, when anything like a revenue survey has been made. It is only then that the difficulty and expense of maintaining the present system is likely to be felt, and for this reason I should wish to see a greater amount of experience and revenue knowledge employed in this important question before any change is attempted."

45. Captain Dunsterville, Judicial Deputy Magistrate of Kurra-  
chee, informed the Commissioner (No. 78, dated 12th April 1855) that there was no Statute labour enforced by Government in the Town of Kurrachee, where all labour was free.

46. Lieutenant Phillips, Deputy Collector, stated (No. 209, of 19th March 1855) that in the district of Sehwan there were no canals on which Statute labour was employed. For clearing the roads after the inundation forced labour only was employed, but, as it appeared to the Deputy Collector that it was not in contemplation to charge this expense to the Zemindars, the district of Sehwan was one to which the proposition of Major Jacob could not be applied.

47. Captain Johnstone, Deputy Collector of Jerruck, stated (No. 155, dated 29th March 1855) that there was no Statute labour employed in his district, unless the clearance of Kurriahs (small irrigation channels) by the Zemindars, could be so called. He admitted the soundness of the free trade principles of Major Jacob, but

maintained that there are exceptional cases which would warrant Ner-ricks, if fixed after due inquiry. He instanced the steam-boat stations at Tatta and Jerruck, where travellers are subject to imposition for want of a fixed tariff of provisions ; and which want he asked permission to provide for.

48. Mr. Cole, the Deputy Collector of Shah Bunder, reported (No. 122, dated 15th April 1855) that there was no Statute labour employed in his district, and that he agreed fully, without exception, with the opinions expressed by Major Jacob.

49. Mr. Bellasis, Collector of Hyderabad, in reply (No. 1995, of 25th May 1855) to the Commissioner's endorsement on the subject of Lieutenant-Colonel Jacob's suggestions, of substituting voluntary paid labour for Statute labour for Canal-clearances, made the following observations, which, as they bear on a very important subject, the Commissioner would submit them for the most part *verbatim*, for the information of Government.

50. Mr. Bellasis fully concurs in Major Jacob's opinion that the present system is an enormous evil, which, while crushing every energy and stopping real improvement, is looked upon as an intolerable hardship by the whole population.

51. He annexes a table of the canal rates in the Hyderabad Collectorate, which have come to us from the time of the Meers, and which have been in some instances fixed with regard to the nature of soil and depth and breadth of the canal, but very often in the most arbitrary manner, and apparently by the whim of some Meer or Kardar.

52. The statement is subjoined :—

“ *Statement showing the Number of Canals in the Hyderabad Collectorate, exclusive of the Nowshera Talooka, with the Rates at which their Clearance is effected.*

| In 2 | Canals | the | rate | is | Guz. | In 45 | Canals | the | rate | is | Guz. |
|------|--------|-----|------|----|------|-------|--------|-----|------|----|------|
|      |        |     |      |    | 13   |       |        |     |      |    | 24   |
| „ 33 | „      | „   | „    | „  | 16   | „ 27  | „      | „   | „    | „  | 25   |
| „ 7  | „      | „   | „    | „  | 17   | „ 28  | „      | „   | „    | „  | 26   |
| „ 7  | „      | „   | „    | „  | 18   | „ 44  | „      | „   | „    | „  | 27   |
| „ 5  | „      | „   | „    | „  | 19   | „ 13  | „      | „   | „    | „  | 28   |
| „ 24 | „      | „   | „    | „  | 20   | „ 33  | „      | „   | „    | „  | 29   |
| „ 24 | „      | „   | „    | „  | 21   | „ 6   | „      | „   | „    | „  | 30   |
| „ 28 | „      | „   | „    | „  | 22   | „ 11  | „      | „   | „    | „  | 31   |
| „ 32 | „      | „   | „    | „  | 23   | „ 3   | „      | „   | „    | „  | 32   |

|              |          |    |    | Guz. |            |          |    |    | Guz. |
|--------------|----------|----|----|------|------------|----------|----|----|------|
| In 19 Canals | the rate | is | 33 |      | In 1 Canal | the rate | is | 41 |      |
| „ 4          | „        | „  | 34 |      | „ 1        | „        | „  | 44 |      |
| „ 1          | „        | „  | 35 |      | „ 1        | „        | „  | 46 |      |
| „ 4          | „        | „  | 36 |      | „ 2        | „        | „  | 50 |      |
| „ 1          | „        | „  | 38 |      |            |          |    |    |      |

Average rate of Canal-clearances in Khureef 1256, 21 Guz per Co.'s Rupee; 25,96,267 Guz having been excavated for 1,25,028 Rupees."

53. "Generally speaking," Mr. Bellasis observes, "the rates were very high, and, as far as I can learn, were never rigidly enforced in the Meers' time, nor even under our own rule. This is the first year they have been fairly tested, and the canals fairly measured by European agency, and the result is that the average wages earned by labourers on the canals is five pies per diem, and nine and ten pies appear to be about the maximum. These rates are manifestly so low, that no private individuals could obtain labour at such rates, and only Government by enforcing a levy on the whole agricultural population of the country.

"Every cultivator who puts up a wheel is bound to send one, two, or three men to clear the canals. They are detained on an average for three months, and as they will not work at five pies a day, the owner of the wheel is obliged to make up the difference to the market price of labour, or more commonly to hire substitutes at two annas per diem. If he sends his own men, he of course keeps the best for cultivation and sends the worst—the cripple, the aged, and the sick. If he sends a substitute, he has no interest in the work and is lazy and indolent, so that, under any circumstance, we get the very worst description of labourers for our canals. They have to be collected in large gangs and driven to their work, and are always discontented and unwilling workmen.

"Thus directly the old canal rates have been tested by fair measurements, they have broken down. It was, I am convinced, only great fraud and unfair measurements that ever kept them in existence so long. The canal expenditure was such a nest of egg for all Native officials, high and low, that they all had an interest in preserving these rates, but now that fraud has by European agency been stopped, the whole system falls to the ground.

"The canals this season, by the great personal exertion of myself and my Deputies, Mr. Beatty and the Canal Surveyors, have been

very fairly cleared, but it has been at the expense of almost every cultivator; the men being brought into the canals and made to labour, and that too for very unremunerative wages. This state of things is so contrary to a healthy condition of the labour market, and so productive of great evils to the country, that the sooner it is abolished the better. Everybody, under this compulsory system, complains that the Canal-clearances are an intolerable hardship, and the measures taken to enforce it are most unpopular—the spirit of industry is deadened; the increase of cultivation is checked; and every cultivator is disturbed and worried. Directly any large public work is undertaken, such as the railroads, where labour will be paid for at something above the market rate, it will be quite impossible to make the men work at the canals for little or nothing. This was felt this very year by Lieutenant Fife increasing the day wages half an anna at the Narra Works: he thereby attracted the labour of the country within a circumference of eighty miles, and had the command of as much labour as he wished, while at the very homes of these labourers in the Halla districts, Mr. Richardson represents there was the greatest difficulty in getting the canals cleared under the compulsory system. If a railway passed through the country, this same result would occur to a greater extent; in fact no amount of forcing would, I believe, with existing rates, collect the requisite number of men.”

54. Mr. Bellasis further states that “the remedy which suggests itself is that proposed by Major Jacob, to pay for labourers at the full market price whatever that might be,” and forwards his Deputies’ opinions, who “unanimously advocate the system of free labour.” He feels “confident that an abundant supply can be obtained at two annas per diem,” and from actual experiment Mr. Bellasis cites the following as an instance. “Late in April, at the recommendation of Mr. Hardy Wells, I was anxious to get a large sand-bank, which formed a great obstruction to the flow of the water, removed from the bed of the Foolailee. This was at a time when the Kardar reported that he could not collect an extra 100 men for the canals. I issued a notice that I would pay two and a half annas a day for labour, half an anna above the rate in Hyderabad; and in a few days I had upwards of 600 labourers, and, had I wanted them, I could have doubled or trebled the number with ease. The men worked as willingly and cheerfully as men could work, removing the sand-bank with great rapidity

in three weeks; and the result is shown in the accompanying statement:—

*“Statement showing the Number of Cubic Guz excavated in the Foolailee near Hoosree; the Cost and Rate per Rupee the same.*

| Total Number of Guz excavated. | Rate per Rupee in Guz. | Total Cost of removing same, daily labour being employed; rate of wages per man per day 2½ Annas. | What same would have cost under Original System, rate of the Foolailee being 14 Cubic Guz per Rupee. | Excess.   | Remarks.  |
|--------------------------------|------------------------|---|--|-----------|---|
| 1                              | 2                      | 3   | 4  | 5         | 6   |
| Cubic Guz.                     | Cubic Guz.             | Rs. a. p.   | Rs. a. p.  | Rs. a. p. |   |
| 9,271                          | 8,633                  | 1,073 14 3  | 662 3 5  | 411 10 10 | Had not daily labour been employed the work could not have been accomplished, from the difficulty there would have been experienced in procuring men. |

(Signed) J. BEATTY,  
Assistant Collector of Canals.”

55. “That the effect of this change,” Mr. Bellasis continues, “will be to increase the canal expenditure there is no doubt; but the inestimable boon and benefit it will confer on the whole agricultural population will more than compensate for the excess. The money will be well spent, and will go in the proper channel as the daily wages of honest labour. The labourer will soon begin to look upon the Canal-clearances not as an intolerable hardship, but as a means of profitably employing his labour and realising a small capital, which he will again expend in improving his home and his lands. It will instil in him habits of industry and order, and prevent a great deal of petty crime and want.

“The total cost of the Canal-clearances in the Hyderabad Collectorate, since the conquest of Sind, including all contingent charges, are shown in the statement following:—

[“Statement



*“ Statement showing the Cost of Canal-clearances in the Hyderabad Collectorate from 1843 to 1854.*

| Season.                   | Cost of Excavation.   |       | Miscellaneous. |       | Pay of Biggamees employed. |       | Ameens. |       | Karkoons, Lakerees, Watchmen, &c. &c. &c. |       | Total.   |       |
|---------------------------|---|-------|----------------|-------|----------------------------|-------|---------|-------|---|-------|----------|-------|
|                           | Rs.   | a. p. | Rs.            | a. p. | Rs.                        | a. p. | Rs.     | a. p. | Rs.                                       | a. p. | Rs.      | a. p. |
| Khureef 1254 (1843) ..... | 1,044   | 2 9   | 78             | 15 3  | .....                      | ..... | .....   | ..... | .....                                     | ..... | 1,123    | 2 0   |
| Do. 1255 (1844) .....     | 83,022  | 13 8  | 3,720          | 15 4  | 1,109                      | 13 0  | 2,045   | 2 8   | 573                                       | 5 10  | 90,473   | 0 6   |
| Do. 1256 (1845) .....     | 1,11,669  | 6 9   | 4,121          | 3 0   | 643                        | 5 9   | 2,243   | 14 9  | 610                                       | 12 10 | 1,19,288 | 11 1  |
| Do. 1257 (1846) .....     | 1,30,486  | 11 9  | 1,582          | 11 10 | 23                         | 7 3   | 3,241   | 0 3   | 668                                       | 14 10 | 1,36,002 | 13 11 |
| Do. 1258 (1847) .....     | } These canals were under Colonel Scott's Department these three years. |       |                |       |                            |       |         |       |   |       |          |       |
| Do. 1259 (1848) .....     |   |       |                |       |                            |       |         |       |   |       |          |       |
| Do. 1260 (1849) .....     |   |       |                |       |                            |       |         |       |   |       |          |       |
| Do. 1261 (1850) .....     | 94,306  | 8 4   | 453            | 2 0   | .....                      | ..... | 4,600   | 0 0   | .....                                     | ..... | 99,359   | 10 4  |
| Do. 1262 (1851) .....     | 1,01,007  | 4 5   | 294            | 15 0  | .....                      | ..... | 4,600   | 0 0   | 51  | 5 4   | 1,05,953 | 8 9   |
| Do. 1263 (1852) .....     | 72,461  | 5 0   | 257            | 14 7  | 387                        | 0 8   | 4,737   | 7 10  | 33  | 15 9  | 78,181   | 5 2   |
| Do. 1264 (1853) .....     | 1,05,540  | 8 11  | 1,975          | 0 0   | 2,580                      | 7 1   | 5,060   | 0 0   | 997                                       | 14 6  | 1,16,153 | 14 6  |
| Do. 1265 (1854) .....     | 1,23,028  | 13 1  | 2,327          | 3 2   | 1,383                      | 15 9  | 3,835   | 4 8   | 6,015                                     | 11 5  | 1,36,591 | 0 1   |

*Statement showing the Cost of Canal-clearances in the Hyderabad Collectorate, including the Nowshefa District, for Khureef 1264 and 1265 (A. D. 1853-54.)*

|                           |         |
|---------------------------|---------|
| Khureef 1264 (1853) ..... | } None. |
| Do. 1265 (1854) .....     |         |

“ Another effect of the change will be to render it absolutely necessary to increase considerably the European agency. It is evident that if men are paid daily wages, it is very necessary to have good superintendence, and that without it much money will be wasted. The three Canal Surveyors who were appointed this year have more than answered my expectations of their services and usefulness. They have effected a very great improvement in the manner in which the canals have been cleared, and they have in one year reduced the canal expenditure, which was

In 1853 .....Rs. 1,16,153 14 6  
 „ 1854 ..... „ 1,36,591 0 1

to

In 1855 .....Rs. 73,149 0 0

“ The element which is most required, and which will pay best in the Canal-clearances, is increased European agency. Though I am of opinion that for the first few years the expenditure will be considerably increased by the introduction of paid daily labour, yet if proper European supervision be employed, the sides of the canals will be brought to the proper slope, their tails will be cleared, and the water have a proper escape ; and thus by removing the causes which give them a tendency to silt again, cutting off bends, and making one canal answer the purpose of two, the actual mileage will be greatly reduced. The annexed statement will show the saving effected on two canals this season where European agency was employed :—

“ *Statement of Canal Expenditure on the Khyrewah and Hussein Aliwah in Purgunna Dundee, and the gross Revenue realisation therefrom.*

| Season.      | Canal Expenditure.   | Khureef Revenue. | Rubbee Revenue.                     |
|--------------|--|------------------|-------------------------------------|
|              | <i>Rs.</i>   | <i>Rs.</i>       | <i>Rs.</i>                          |
| In 1850..... | 1,331  | 2,979            | 53                                  |
| „ 1851.....  | 1,225  | 9,450            | 73                                  |
| „ 1852.....  | 1,022  | 3,900            | 135                                 |
| „ 1853.....  | 2,079  | 6,519            | 46                                  |
| „ 1854.....  | 5,230  | 10,515           | Clearance by agency of<br>Kardars.  |
| „ 1855.....  | 563<br>including 144 for<br>a new cut to give<br>one of the canals<br>a proper escape. | Crop not sown.   | Clearance under European<br>agency. |

“ With reference to the financial effect of acting on Major Jacob’s plan, I beg to state that the nearest estimate I can give is derived from the Weekly Digests, in which were stated the number of men employed on each canal. From these, which I believe to be a rather low approximation, I find that in this year about 10,000 men have been employed for twenty weeks, and if these men had been paid two annas per diem, their hire would amount to Rs. 1,50,000.

“ I do not comprehend how any portion of this sum could be recovered from the Zemindars as proposed by Major Jacob, for though an increased Hukaba rate might be placed on Jagheer lands, yet in Khalsa lands any increased Hukaba would lessen the value of each wheel, and so proportionately cause a reduction in the assessment or revenue.

“ Another difficulty which should be considered with this question is the clearance of the Kurriahs. No sooner have Government cleared the 426 canals, than the Kardars and cultivators begin to ask Government to clear an innumerable number of Kurriahs, or allow them six Toyas. Captain Rathborne laid down that Government would clear no Kurriah that was not one Guz in depth, and for Kurriahs under this standard he was in the habit of allowing six Toyas out of the Hurdusura or gross produce.

“ My opinion is that of the 426 canals the whole should be revised, when probably some 300 and odd will be found quite beyond the means of the cultivators to clear, and these might be admitted into the Government list, to be cleared by paid daily labour. With respect to the rest, the test to be applied to them should be what has been their cost during the last five years, and whether that expenditure has been warranted by the number of wheels under cultivation and the revenue derived therefrom. If not, I think they should be struck out of the Government list, except there are any special reasons.

“ In consideration of the inestimable benefit conferred by Government clearing all the principal canals by paid daily labour, it should, I think, be made known to the cultivators that no Kurriahs would be cleared by Government, and no six Toya allowed ; but all Kardars should be made to consider it to be a part of their ordinary duty to see that the Kurriahs are properly cleared before the inundation, by Mookadummies and Zemindars.

“ Without some plan of this kind is devised, I foresee endless trouble,

expense, and the door of fraud will still be left open ; for these Kurriahs are always cleared in May and June, when no European can go to superintend them in consequence of the terrific heat.

“ I beg to direct your attention to Mr. Beatty’s report on this subject. He has had much experience in working large bodies of men, and speaks with great confidence on the great improvement that will result.”

56. In reporting on this subject on the 3rd April 1855 (No. 177), Mr Beatty, Assistant Collector for Canals, forwarded “ a table framed from actual experience by Mr. Wilson, 2nd Canal Surveyor, which shows the amount of work done per day by each man on several of the canals in the Halla District, and the rate of wages earned by them.”

57. “ To this,” says Mr. Beatty, “ I have added an abstract showing the average amount of work done, and rate of wages earned by the men on those several canals :—

*“ Abstract showing the Average Daily Labour and Rate of Wages earned on those Canals experimented on by Mr. Wilson.*

| Name of Canal.     | Cubic Guz<br>per Rupee. | Average Daily<br>Labour. | Average Rate of<br>Wages earned. |           |           | Remarks. |
|--------------------|-------------------------|--------------------------|----------------------------------|-----------|-----------|----------|
|                    |                         |                          | <i>Rs.</i>                       | <i>a.</i> | <i>p.</i> |          |
| Sarung.....        | 25                      | 1·055                    | 129                              | 11        | 2         |          |
| Lukkeewah .....    | 26                      | 6·085                    | 72                               | 7         | 6         |          |
| Gharoo.....        | 26                      | 3·596                    | 119                              | 7         | 6         |          |
| Great Manuk .....  | 24                      | 7·941                    | 215                              | 6         | 10        |          |
| Ali Bhur .....     | 21                      | 9·018                    | 361                              | 11        | 11        |          |
| Jamwah .....       | 27                      | 7·182                    | 89                               | 12        | 6         |          |
| Shahwah .....      | 24                      | 8·080                    | 97                               | 2         | 8         |          |
| Munjee Beejah..... | 21                      | 5·597                    | 58                               | 4         | 11        |          |

(Signed) J. BEATTY,  
Assistant Collector for Canals.

*Camp, Hajee Bowah, 3rd April 1855.*

“ A cursory glance will be sufficient to show how ~~unremunerative~~ these wages are ; and can it be wondered at that the canal clearer does not endeavour to execute a greater amount of daily labour, when it is recollected he is well aware that the harder he works it only tends the more to enrich the Zemindars, who, under the present system, besides being the direct gainers from the clearances, are in the habit

of deducting for their own emolument one-sixteenth and sometimes one-eighth from every sum earned by the poor labourer ?

“ Can any one then be astonished that the unfortunate Ryut looks with horror and distaste on the Canal-clearances, when, as long as the work continues, he is kept in a state of demi-slavery, which is much aggravated when, as is often the case, he is brought to work on canals from which he derives no water, and consequently (as he does not receive anything like a remunerative return for his labour) he has not the slightest interest in ? So great is their dislike to be thus dragged to these works, that it is not an unknown thing for a labourer himself to pay a substitute two annas a day to work on a canal from which he may receive in return not more than five pies per day.

“ And when men are brought to work on a canal the rate of which is so high (say 50-6 Guz per Rupee, which some are) that it is a moral impossibility for them, slave and toil how they may, to earn as much as will even grant them a bare subsistence, they look on their case naturally as an utterly hopeless one, and become, as might be supposed, sluggish and indolent. I might bring forward as an instance the Aliwah and Sherewah, two canals which, branching from the same place at the lower end of the Govee, run parallel together for several miles, and although there is no great difficulty in clearing one more than another, yet while the rate on the latter is only 22 Guz per Rupee, that on the former is 33. What then was the result this very year ? Although both are commenced on the same day under equal auspices, at the end of the month but ten Takees were completed in the former.

“ And that they will work well and willingly, if fairly dealt with, I am quite convinced of, from what I have seen during the month and a half I have spent with you in the southern part of the Mahomed Khan's Tanda District, where, when we arrived, no set of men could have been more discontented or unwilling to labour, and of the wonderful change which was wrought in those very same men during your stay amongst them. No greater proof, I think, could be advanced than that of their coming forward of their own accord and stating, that were they always thus honestly and fairly dealt with, they would require neither Kardar, Zemindar, nor anybody else to go and drag them to the Clearances, but they would, of their free will and accord, come to work, when some hope of gaining a fair remuneration for their labour was afforded.

“ This, I think, was no slight moral victory to gain, for who does not know how much more the willing and free working labourer will do, than the man who, having been first dragged to his work, is then kept there against his will. He naturally becomes idle and sulky, and, though kept through fear of fine and punishment, does no real good.

“ With reference to the rate of daily wages at which an abundant supply of men for the Canal-clearances could be always ensured, I would beg to suggest that instead of one fixed rate being established, a scale of rates might with advantage be adopted, and which might vary say from two annas to one anna per day.

“ The men being divided into classes according to their age, size, and strength, the best and most able-bodied receiving the highest rate of wages or two annas per day, and those inferior still one anna a day ; and that no loss from these wages would be experienced by Government, I think Major Jacob's suggestion of re-collecting the amounts from the landholders fully provides against.

“ My reason for suggesting the scale of wages is, that everybody likes to be paid according to his worth in comparison with others. Therefore if *one* fixed rate were established, it would doubtless appear unfair to the strong able-bodied labourer in the prime of health and vigour, who might, we will suppose, be working between an old man on one side and a mere boy on the other, to find his superior services valued only on an equality with those.

“ Thus finally the stronger and more athletic man would begin only to do as much work as the weaker and less powerful, knowing that in either case the remuneration to each would be the same.

“ Finally, I would beg to remark, that perhaps an improvement might be made on Major Jacob's recommendation by paying cash more separately from the adoption of some such plan as was suggested in my letter to you No. 167, dated 25th ultimo, and thus, much time and unnecessary trouble saved.”

58. The replies from the Deputy Collectors in the Hydrabad Districts are given below :—

59. Captain Jameson, the Deputy Collector of Nowshera, stated (No. 195, dated 10th May 1855) that it was most desirable that free labour should be introduced in those districts where Statute labour obtains, and it would confer inestimable benefits to the people, as

well as redound to the honour of their rulers. He was very glad to see that the subject was under discussion. The plan at the outset would be a very expensive one, as he thought it would be very difficult to recover the proportionate outlay thus expended, from the Zemindars.

60. Captain Jameson thought that no separate water tax should be levied from the cultivators, or that the expense of clearance should be apportioned among them. It should be considered the peculiar duty of Government to clear all canals above a size at its own expense; and to partly cover the large outlay which would be at first necessary by so doing, the District Officers should, in making the settlements, add a certain per-centage according to circumstances.

61. To give an idea of the increase of expenditure, Captain Jameson submitted an estimate of the expenditure on account of clearance by free labour as compared with the system of Statute labour, and in conclusion observed, that considering the revenues of his districts, it would be a wise and politic measure if Government would renounce such difference of revenue on account of the free labour system.

62. The statement submitted by Captain Jameson shows that Rupees 8,603-6-0 is now incurred for the clearance of nineteen of the principal canals, while, if they were cleared by free labour, the expense estimated was Rupees 27,615-14-0, being an excess of Rupees 19,012-8-0.

63. Captain Dunsterville, Deputy Collector in charge of Mahomed Khan's Tanda, on this subject observed (No. 66, dated 30th March 1855) that under certain conditions, a very abundant supply of labour would be obtainable in his districts, without compulsion, at the rate of two annas per diem. The present rate of a labourer on the canals averages from five to eight pice daily.

64. The conditions referred to were as follows :—

Work hours to be from sunrise to sunset daily (Friday excepted), two hours being given in the middle of the day for rest, &c.

Every Friday to be a holiday, and no work to be demanded from the Kurriah on that day, and each man to receive his wages *regularly* at sunset.

65. Captain Dunsterville proposed the appointment of one overseer to every 100 workmen, who should see that each man did his work, and he engages to turn out three times as much work in any given

time. European agency would be absolutely necessary to carry out Captain Dunsterville's proposition.

66. Mr. Richardson, the Deputy Collector of Halla, remarked (No. 72, dated 3rd April 1855) that the rates paid in his districts are very low, and hence, he believes, the difficulty in obtaining a sufficient number of labourers for his canals. He thinks that if the rate were raised to two annas, there would be no difficulty in procuring any number of men. He instanced the case of the excavations of the ancient city of Brahminabad, where, so far from finding any difficulty in procuring labourers, he could have got almost any number. He paid these men two annas a day, and for boys one anna. As he required only a certain number many were rejected, and yet, at this very time he had the greatest difficulty in getting labourers for the canals.

67. Mr. Richardson was quite aware that by raising the Canal-clearance rates to two annas per man per diem, the cost of the clearance would be considerably increased in comparison with what it cost the year previous; but he still thought that were even two annas per diem paid as the rate, the clearance would be effected cheaper than before. Constant supervision and regular payments would ensure a fair amount of work for a fair wage. If the day's wages were paid into the labourer's own hands every morning, there would be no necessity for compulsory labour.

68. Mr. Richardson further remarked that under the present system a man for instance earns five pice a day, and he works four months, at which rate he would only earn Rupees 8 and 12 annas, or 2 Rupees 3 annas per month; and out of this sum he has to feed and clothe himself and to find his own Powrah.

69. It would seem absurd, but Mr. Richardson stated that he has taken nearly the best rate that obtains, viz. five pice per diem, and he concluded by observing that the subject was one which he had long considered, and although he has been obliged to work with what labour he could get, he was only too glad to raise his voice for free trade in labour as well as in everything else.

70. Lieutenant Tyrwhitt, the Deputy Collector of Meerpore, considers (No. 83, dated 10th April 1855) that the rates at present paid for canal work are too low even to afford sufficient food for the labourer when the season has been bad, and in even a good season it is barely



sufficient, as the Deputy Collector is convinced that they bring money from their homes for that purpose ; and this is the chief cause of the difficulty experienced in collecting men for the Canal-clearances.

71. Lieutenant Tyrwhitt was certain that if the labourers were regularly paid two annas a day, the canals in his district would be better and more quickly cleared than they have ever been before. Should daily payment of wages not be approved, he proposes task work, according to the nature of the canal, at a fair rate.

72. From a table submitted by Lieutenant Tyrwhitt, the general average of Canal-clearances for the past season is shown at 22 Guz per Rupee, and as he considers that 11 or 12 Guz is a fair rate for surface work at the depth of one Guz, and which would enable a man to earn two annas per diem, it is evident that one-half of the labour is done for nothing.

73. In reply to the foregoing letter from the Collector of Hyderabad, the Commissioner in Sind communicated to him, under date the 12th November 1855, the following observations and instructions on the subject of labour employed for the clearance of canals in his Collectorate.

74. The Commissioner stated that the facts mentioned in Mr. Bellasis' very full and interesting report prove that the present system entails considerable hardship on the workmen, who are forced to work at wages which are not sufficient to afford them daily bread, and that the experience of late years had shown that the burden was only rendered tolerable by an amount of fraud in measuring and calculating, which gave the persons employed about double the nominal wages.

75. The remedy generally approved by the Collector and his Deputies appeared to the Commissioner to be the payment of daily wages at the rate of two annas per diem.

76. The Commissioner remarked that this rate may be in some cases much more, in others much less than a fair day's wages, and that no sum arbitrarily fixed could be fair at all times and in all places.

77. That when workmen were scattered and their supervision and payment obliged to be left to subordinate Native officials, the Commissioner feared there would be more fraud and much less check than by the present system of payment by measurement. That the

system if revised so as to give every man a fair day's wages for a fair day's work was a sound one, and could, he thought, be made equitable to all parties.

78. The Commissioner therefore requested the Collector, with the aid of his Deputies and the Canal Establishment, to revise the rates of each canal so as to ensure the workmen a fair day's wages for honest work. The revised rates should be acted on after they had been approved by the Collector, but they should not be considered finally fixed till the Consulting Engineer had approved of them.

79. The Commissioner also observed that there would be cases in which the work could not be properly measured, and if it could be done without chance of fraud by efficient supervision, the payment of daily wages might be arranged for and paid. Payment by measurement should be the rule, daily wages the exception, and which latter should only be allowed under faithful superintendence.

80. Lieutenant-Colonel Jacob had, the Commissioner was aware, executed several large works by contract, with generally very satisfactory results, and the Commissioner stated that in the enlargement of canals and the removal of spoil banks, the contract system would seem preferable to any other.

81. Great care should be taken to prevent Native Officers from exacting such extra labour as ordinary Canal-clearance. This should be fully and fairly paid for.

82. The Commissioner remarked that it was clearly desirable that Canal-clearances should be performed by Kamrias or professed diggers, leaving the agriculturists free to look after their land, and he thought this could be effected by a revision of the rates. The best instance of really free labour, paid by daily task wages, was afforded by the Narra supply channel, organised with such tact and ability by Lieutenant Fife, who would be glad to furnish details of the plan to the Collector.

83. Regarding the Collector's remarks on the levy of "Hukaba" (water rate), the Commissioner observed that it would be very desirable to keep its levy distinct from the Government revenue, even in Khalsa lands; as it affords a ready means of knowing what canals pay in proportion to the outlay on them, and it would show what sum the cultivator would expect Government to lay out on his Canal-clearance. The Commissioner stated that this was one reason why

the distinct levy of Hukaba should be maintained, though it had often not been followed in late years and in recent settlements.

84. The Collector's plan for reducing the number of canals to be cleared by Government was judicious. There were many ways in which an active Native Revenue Officer could aid the cultivators in clearing the smaller water-courses without Government labour, and one of the most common is the advance of a small sum of money or grain in the clearing season to aid them in hiring labourers, recovering the amount at harvest time.

85. The Irrigation Returns called for in the Commissioner's circular No. 484, of 1st March 1853, will show the Collector and his Deputies at a glance what each canal costs and returns to Government; and it would correct many anomalies in the present system, in which large sums are spent on canals producing little revenue to Government, while others highly productive are insufficiently cleared.

86. As the Nowshera system is similar to that of Upper Sind (being for the most part pure unpaid Statute labour), the instructions issued by the Commissioner as applicable to the rest of the Hyderabad Collectorate, would require modification before being applied to these two districts. The Commissioner was aware that Lieutenant Jameson had given much attention to the subject, and he would leave it to him to suggest the course to be pursued, bearing in mind the following two main principles.

1st.—“That where the cultivators by their own labour, or that of their own workmen, clear the canals without the interference of Government officials, it is not at all desirable for us to meddle or to make any change, but to leave the people to themselves.

2nd.—“That where Government does interfere to ensure or regulate clearance, there forced labour for inadequate wages is not to be permitted, and some arrangement must be made either to pay the workmen on account of Government or to ensure their being paid by the Zemindars. The mode in which this should be done, and whether any and what expenditure by Government should be covered by the levy of Hukaba, are subjects which Lieutenant Jameson should consider and favour us with his suggestions.”

87. The Collector's letter and those of his Deputies on this subject, with this reply, the Commissioner directed to be circulated to

the Deputy Collectors in the Hyderabad Collectorate, for their perusal and future guidance; and the Commissioner hoped that they would be "as successful in preventing the people being oppressed by forced labour, as they have been in commencing a really efficient clearance of the canals."

88. The Commissioner stated that he would hereafter forward to the Collector of Hyderabad copy of his letter to the other Collectors on this subject.

89. The Commissioner, on the 24th November, circulated copies of the foregoing correspondence for the information and guidance of the Collectors of Kurrachee and Shikarpoor, and also for the information of the Superintending Engineer.

90. Before receiving the Commissioner's reply No. 3556, of the 12th November, Mr. Bellasis, the Collector of Hyderabad, in a letter dated 22nd November, No. 1950, informed the Commissioner that the canal season had commenced, and he had issued instructions to his Deputies on the mode of their clearance for the ensuing season. He submitted copy of his letter of instructions, and reported that as it contained nothing contrary to those set forth in the Commissioner's letter, he had allowed both to remain in force.

91. These instructions are now given in extenso.

"My report to the Commissioner, quoted in the margin, will have put you in possession of my views in regard to the inadequacy of the present canal rates, and of the employment of free paid labour on the Canal-clearance; and although I have urged this subject again upon the notice of the Commissioner, I have received up to this date no instructions, and I believe nothing is definitely fixed.

"I am quite aware with such low rates as those of the Meers; measured fairly by European agency, it would not be practicable to obtain a sufficiency of labourers without having recourse to pressing.

"In the absence of all instructions, I think the best plan will be to make such an increase in the rates, as will enable a labourer to earn moderately fair wages, and also to induce contractors to come forward and take up portions of the Canal-clearances.

"The rates should be regulated by the depth and breadth of a canal, as well as by the height of spoil, &c. &c. they should vary

No. 1095, dated 25th May 1855, regarding abolition of Statute labour, circulated with Collector's endorsement No. 1114, dated 29th idem.

in different parts of the same canal according as these circumstances vary ; thus, near the mouth of a canal the spoil is usually very high, and the labour of placing the fresh spoil behind the old spoil will be very great, whereas at some little distance from the mouth these high spoil banks cease to exist, and the clearance of the canal is attended with little labour ; in such cases there should be a graduated scale of rates, higher for those Lakees nearest the mouth, less for the next number of Lakees, and still less as the clearance gets higher towards the tail.

“ The Canal Surveyors will, I think, be in most instances the best persons to say where these changes should commence and end, when they are measuring a canal.

“ I have made many inquiries, and I have come to the opinion that a reduction to any rate exceeding 25 per cent. on the present rates will, in most instances, give workmen a fair remuneration for their labour ; and the present rates may, as above explained, be altered where a necessity exists, and, if a further reduction be required in any particular case, a special report should be made to the Collector.

“ You will still bear in mind that the Zemindars of the country are bound to render aid in collecting the men ; it is as much for their benefit as for the interest of Government that the canals should be cleared ; and because the rates have been placed on a more liberal footing, that is the very reason that the Zemindars’ full share of responsibility and aid should be exacted from them.

“ You will also observe that the rules this season have been made more liberal, and offer greater facilities for the collection of men ; and I trust to your discretion and judgment, Gentlemen, to put them into practice, so that any general pressure of labour may be avoided, and the Canal-clearance effectually made at such moderately fair wages as will remunerate the labourers and make them work cheerfully.”

92. The Commissioner, in reply, informed the Collector of Hyderabad that his instructions generally seemed judicious, and he had only to observe, in reference to paragraph 7 (on the reduction of 25 per cent. of the present rates paid for labour, in his opinion a fair remuneration) that no uniform rule could be laid down. Careful experiment in each canal could alone show to what extent rates should be modified ; but none should be carried out without proof of their necessity.

93. The Commissioner requested the Collector to communicate

these instructions to his Deputies, and desired they should guide their proceedings in strict conformity thereto.

(Signed) JOHN JACOB, Lieutenant-Colonel,  
Acting Commissioner in Sind.

*Commissioner's Office,  
Camp Beeman, Kurrachee Districts,  
9th April 1856.*

No. 1254 of 1856.

PUBLIC WORKS DEPARTMENT.

To the ACTING COMMISSIONER IN SIND.

SIR,—I have placed before Government your letter No. 171, dated the 9th April 1856, and the Summary of correspondence therewith submitted, on the subject of Statute labour in the Province of Sind, and, in reply, am directed to inform you, that the Right Honorable the Governor in Council entirely concurs with you in your views on the subject, and in those entertained by Mr. Frere as far as they can be gathered from the present papers.

2. His Lordship in Council is only surprised to learn that what is miscalled Statute labour (since it is contrary to the Regulations of this Presidency and to the orders of Government) has been suffered to remain so long in existence, and he has no doubt that very much of the mismanagement of the canals in Sind may be traced to this system.

3. Government are much indebted to you for having brought forward this subject, and approve of your having anticipated their orders for the abolition of compulsory and inadequately paid labour.

4. The rules proposed by you for the clearance of canals appear to be judicious, but before finally approving and sanctioning them, His Lordship in Council requests that you will have the goodness to ascertain and report to Government, whether Lieutenant-Colonel Turner has any suggestions to offer respecting them.

I have the honour to be, &c.

(Signed) W. HART,  
Secretary to Government.

*Bombay Castle, 22nd May 1856.*

No. 209 of 1856.

PUBLIC WORKS DEPARTMENT.

From Lieutenant-Colonel JOHN JACOB, C.B.,  
Acting Commissioner in Sind,

To the Right Honorable LORD ELPHINSTONE, G.C.H.,  
Governor and President in Council, Bombay.

*Dated 13th May 1856.*

MY LORD,—With reference to the subject of my letter as per margin, I have the honour to forward a copy of a printed notice relative to Statute labour in Sind, which I have caused to be circulated throughout the Province, and which I trust will meet with the approval of your Lordship in Council.

No. 171, of the 9th ultimo, forwarding summary of correspondence relative to Statute labour in Sind, and requesting sanction to its abolition.

I have the honour to be, &c.

(Signed) JOHN JACOB, Lieutenant-Colonel,  
Acting Commissioner in Sind.

*Commissioner's Office,  
Kurrachee, 13th May 1856.*

NOTICE.

- I. Statute or forced labour is abolished in Sind.
- II. Every man is at perfect liberty to work when, where, and at what rates he may please.
- III. Any Government servant, who may hereafter be guilty of compelling any person to labour, whether upon canals or any other public or private work, will be liable to be dismissed from the Government service, and to legal prosecution by the injured parties.
- IV. Every work of whatever description may be performed either by means of contract or measured task work, or by payment of daily wages, at the discretion and pleasure of the parties immediately concerned. But no person must henceforth assume the right arbitrarily to fix the rates at which labourers or others are to be paid for

work performed ; such rates must always be fixed by free consent and mutual agreement of the parties themselves.

(Signed) JOHN JACOB, Lieutenant-Colonel,  
Acting Commissioner in Sind.

*Commissioner's Office,  
Kurrachee, 25th April 1856.*



**SELECTIONS FROM THE RECORDS OF THE BOMBAY  
GOVERNMENT.**

No. XXXV.—NEW SERIES.

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**REPORT BY THE COLLECTOR OF KURRACHEE  
ON THE  
HILLY REGION FORMING THE WESTERN  
PART OF THAT COLLECTORATE:**

ALSO

**A LETTER FROM THE ACTING COMMISSIONER IN SIND  
SUBMITTING THE ABOVE REPORT;**

AND

**THE INSTRUCTIONS ISSUED BY GOVERNMENT ON  
THE SUBJECT.**

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**Bombay:**  
PRINTED FOR GOVERNMENT  
AT THE  
BOMBAY EDUCATION SOCIETY'S PRESS.  

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1856.



## HILL DISTRICTS OF THE KURRACHEE COLLECTORATE.

NO. 265 OF 1856.

REVENUE DEPARTMENT.

From Lieutenant Colonel JOHN JACOB, C.B.,  
Acting Commissioner in Sind,

To the Right Honorable Lord ELPHINSTONE, G.C.H.,  
Governor and President in Council, Bombay.

*Dated 8th July 1856.*

MY LORD,—I have the honour to submit a report, No. 1499, dated 9th June 1856, drawn up by Major Preedy, Collector of Kurrachee, upon the Hill Region forming the western portion of his Collectorate. These hilly tracts are outlying branches of the great mountain range stretching almost unbroken from Peshawur to the ocean. They reach northward until Sehwan, where they abut on the river; and their southern extremities are Munora Point and Cape Monze. The aspect of the region is wild and savage. The valleys and plains lie at an elevation of some 1,000 feet above the level of the Indus, while the hill ranges rise above the valleys from 1,500 to 2,000 feet higher. The formation, which is of stratified limestone, bears evident marks of volcanic action; and the entire district forms a thorough contrast to the other portions of this province.

2. In the autumn of last year Mr. Frere visited this region, in view to ascertaining its present resources, its capabilities for improvement, and the characteristics of its inhabitants, with the intention of afterwards submitting to Government such suggestions for the management of this singular tract as his personal inspection might lead him to consider expedient.

3. Mr. Frere had, however, scarcely left the hill tract, when he was compelled by failing health to quit the province, and he was thus prevented drawing up his proposed report. He nevertheless placed upon record some rough notes, briefly illustrative of his ideas regarding this portion of his charge; and I have already in paragraphs 78 to 82 of my annual report, No. 40, of the 31st May last, embodied those views for the information of your Lordship in Council.

4. Following out Mr. Frere's wishes, I requested the Collector of Kurrachee, who had accompanied him during his tour, to furnish me any suggestions that might have occurred to him for the improvement of the district. In issuing my instructions, I informed Major Preedy that I did not anticipate we should be enabled to turn this region to any profitable account by collecting a revenue from the present scanty agricultural produce of its rain-lands, and that I should not deem it advisable to levy such tax even although cultivation should be extended; but that the hill tracts were chiefly valuable as grazing lands, and that we might do something towards ameliorating the condition of the Hillmen, by assisting them to construct a few wells or bunds for supplying their cattle and themselves with water; by endeavouring to introduce into their villages or grazing districts some form of Patelship; by ascertaining, registering, and perhaps levying some slight capitation tax upon the cattle; and by opening up roads through the more frequented valleys, to enable the Hillmen to bring the produce of their flocks and herds readily to market.

5. With the object of more accurately ascertaining the social statistics of this region, I supplied Major Preedy a form of statement, showing the name of every village, tract, or valley; the names of the chief men, and approximate estimates of the numbers of inhabitants; of the size and description of boundaries; of the numbers of flocks and herds; and of the number of wells. But, above all, I impressed on the Collector the necessity of bearing in mind throughout these proceedings with the people of the hill tracts, that they are essentially a pastoral, and therefore, in some degree, a nomadic race, and that no attempt should be made towards compelling them to have recourse to agriculture; on the contrary, that they should be left wholly free to choose their own mode of life, as circumstances might permit.

6. In compliance with my request, Major Preedy has furnished the accompanying memoranda, which contain the required informa-

tion. It appears that the entire district is about 120 miles in length, with an average breadth of 50 miles, containing about 6,000 square

|                         |        |  |
|-------------------------|--------|--|
| 1 Naib Kardar ..        | Rs. 40 | miles of country. The establishment hitherto   |
| 1 Moonshee . . . .      | 10     | employed in its revenue management has been    |
| 2 Tuppadders, at Rs.    |        | unprecedentedly small, costing only Rs. 90     |
| 15 each. . . .          | 30     | per mensem. The total revenue derived in       |
| 2 Peons, at Rs. 5 each. | 10     | 1854-55 amounted to Rs. 1,171, of which sum    |
|                         | —      | Rs. 650 were realised by the levy of Rs. 1 per |
| Total . . .             | Rs. 90 |  |

cart-load on grass cut in the Guddap Valley, and the balance, Rs. 514, on garden lands lying along the Mulleer river banks.

7. The Collector does not state, nor indeed would it be possible to estimate with any degree of certainty, what might be the effects of bringing this hill country under careful management. Major Preedy is of opinion (paragraphs 30 and 31) the present inhabitants are by no means disinclined to agriculture, and that by securing heads of water in well selected situations, we might widely extend cultivation. But my own opinion is that the staple wealth of these districts naturally consists in flocks and herds. These, together with ghee, wool, and other pastoral produce, they could exchange with the more varied commodities of the plains, thereby commanding the supplies of distant markets at a less cost than they could be produced at home; and I think that our object should be to promote these interchanges by means of improved communication, and thus gradually to create among these half civilised races new wants, increased productiveness, and a higher social condition.

8. In his 32nd paragraph Major Preedy enumerates the other measures he would recommend in view to forwarding the object contemplated. These proposals are as follows:—

“ 32. In the *second* place, I would have a rough survey made of the whole district, and fix a light assessment on all grazing lands, the farm of which I would offer, in the first instance, to the Chief of the tribe now in possession. The boundaries of all these lands are well known, and are for the most part well defined. If the Chief agreed to pay the rent fixed, either by the year or on lease for a series of years, I would allow him to make his own terms with all who wished either to cut grass or to graze cattle within his limits.

“ *Thirdly*.—I would recommend the construction in favourable localities, and near the larger villages, of pukka wells with troughs for watering cattle attached. The wells should, I think, be con-

structed only where the villagers would engage to keep them properly drawn, leaving them at liberty to apply the water not required for themselves and their cattle to agricultural or horticultural purposes. I would also have cleared roads made wherever necessary.

“ *Fourthly*.—Without in any way attempting to force agriculture on the people, I would assist those who required aid, and who could give security that the money would not be misapplied, with small advances for the construction of kutchha bunds for cultivation in suitable situations.

“ *Fifthly*.—I would endeavour to improve the breed of cattle throughout the districts, and greatly to multiply their numbers. The breeds of sheep, goats, and horses might, I think, be greatly improved.

“ *Sixthly*.—I would use every effort to promote education both amongst Chiefs and people, and to bring them acquainted with the common wants and conveniences of civilised life, of which the great part of the Hillmen have at present not the most remote idea.

“ *Lastly*, if the above recommendations meet with your favourable approval, as it is clear that the present establishment is wholly inadequate for the performance of such important duties as would be required of them, and as it would be impossible, with my numerous other duties, for me effectually to discharge the executive duties of a homestead very little short in extent of the principality of Wales, I would beg to recommend that an additional assistant, with a suitable establishment, be allowed me, to take charge of, and to carry out, under my superintendence, the above improvements in the Highlands.”

9. These suggestions have my general concurrence ; and, on the whole, the question presents itself to my mind in the manner now summarised :—That it is undoubtedly advisable to turn our attention towards the development of this hill region ; that it is so advisable, not simply because the district forms a portion of this province, but because, also, its natural development would supply the requirements of the plain ; because the region itself lies along the frontier of our empire ; and, mainly and chiefly, because I am convinced that every advance we make in civilising and attaching to us the wild people dwelling on our western borders, tends to cause a corresponding extension of wholesome English influence towards Beloochistan, and

adds really, permanently, and by the most unexceptional means, to the strength of our empire, whether as respects peaceful or warlike operations. On the other hand, that we have still a large field of labour open to us in developing the agricultural and other resources of the plain country of Sind ; that this plain country would constantly yield a more remunerative, more immediate, and, generally, more important return ; and that the means at our disposal for the performance of the whole task as respects both hill and plain are very limited.

10. Giving due weight to these considerations, I do not think that it would be consistent with a wise economy at present to incur much cost for the maintenance of a revenue establishment in this hill district, and I am not inclined to recommend that your Lordship in Council should *immediately* sanction any greatly increased establishment on account of this tract. I would suggest, rather, that when Captain Hodgkinson, Supernumerary Deputy Collector, Kurrachee Collectorate, shall return to his duties (some two or three months hence), his services be temporarily made available for a more detailed inspection, and such general ameliorative measures in regard to it as he may find opportunity for effecting ; and that I be empowered to sanction for his assistance in this work such temporary increase upon the present establishment of Rs. 90 per mensem as may from time to time appear necessary ; provided always that the total monthly cost of such establishment do not exceed an aggregate of Rs. 205 per mensem, as per margin—that is Rs. 115 more

|                          |         |
|--------------------------|---------|
| 1 English Clerk . .      | Rs. 50  |
| 1 Kardar . . . . .       | 50      |
| 1 Head Moonshee . .      | 25      |
| 1 2nd Moonshee . . .     | 15      |
| 4 Peons, at Rs. 5 each.  | 20      |
| 3 Tuppadders, at Rs. 15. | 45      |
| <hr/>                    |         |
| Total . . . . .          | Rs. 205 |

than at present disbursed.

11. It is my own intention to visit the hill region immediately the season opens, and I can then more precisely learn what may really be required ; and, after Captain Hodgkinson shall have passed some months there, he will probably be enabled to furnish such a report as, with my future observations, shall place me in a position to lay before Government, next year, some permanent plan of revenue management for the entire district.

12. Having so recently described the inhabitants of the tract now under report, and the Collector's remarks upon them being very detailed, it is unnecessary that I should occupy the attention of your Lordship in Council by any further description of them. I will

mention only that by the Census Return of last February it appears that the district contains 187 permanent habitations, and 3,322 temporary huts; that the Mahomedan population totals 14,154 souls, and the Hindoo population 2,246 souls; thus showing a grand total of 16,400 souls, or about  $2\frac{1}{2}$  to the square mile.

I have the honour to be, &c.

JOHN JACOB, Lieutenant Colonel,  
Acting Commissioner in Sind.

*Commissioner's Office, Kurrachee, 8th July 1856.*

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NO. 1499 OF 1856.

REVENUE DEPARTMENT.

From the COLLECTOR OF KURRACHEE,

To Lieutenant Colonel JOHN JACOB, C.B.,

Acting Commissioner in Sind.

*Dated 9th June 1856.*

SIR,—In compliance with the request contained in your letter marginally noted, I have the honour to submit No. 825, of the 21st March 1856, Revenue Department. for your consideration the following memoranda regarding the present state of the Hill Districts of my Collectorate, showing their estimated extent, the amount of revenue derived by Government from them, and the tribes inhabiting them; together with a few remarks relative to the measures which I would recommend should be adopted for their improvement.

2. The tract of country denominated the Hill Districts or Highlands of Kurrachee extends from the Ghara Creek and Cape Monze on the south and south-west to the Valley of the Munchore Lake on the north. It is bounded on the east by a chain of rugged mountains, and on the west by the Hubb River and the new boundary line on the Mohul and Keertur Mountains, fixed by Lieutenant Stewart.

3. The whole district is about 120 miles in length, with an average breadth of 50 miles, or about 6,000 square miles in extent.

4. The establishment employed in the revenue management of this extensive district is detailed below, and is, as will be observed, on



the most limited scale, the aggregate expenditure on this account being Rs. 90 only per mensem :—

|                                     |        |
|-------------------------------------|--------|
| 1 Nailb Kardar, per mensem.....     | Rs. 40 |
| 1 Moonshee, ditto .....             | 10     |
| 2 Tuppadders, at Rs. 15 ditto ..... | 30     |
| 2 Peons, at Rs. 5 ditto .....       | 10     |
| <hr/>                               |        |
| Total....                           | Rs. 90 |

5. The total revenue derived by Government in 1854-55 was Rs. 1,171, of which amount Rs. 658 were realised by the levy of Rs. 1 per cart-load on grass cut in the Guddap Valley, and brought for sale in the Kurrachee bazars. The balance, Rs. 514, was the amount of land tax levied on the garden cultivation in the Valley of the Mulleer River.

6. Prior to our rule, agriculture, except in the immediate vicinity of a few natural springs, would seem never to have been attempted in these districts. The inhabitants, from the earliest times, appear to have been a pastoral people ; and although the remains of very extensive bunds are frequently met with, these, from their position, were evidently intended for the retention of rain-water for the use of the inhabitants and their cattle, and not for irrigational purposes.

7. Since the country came into our hands, agriculture, wherever practicable, has been encouraged, and in some very favourable localities, such as the Valleys of the Mulleer and Hubb, with considerable success. On the banks of the Mulleer, about 2,000 beegas of waste land had been converted into flourishing gardens, and there was every hope of the cultivation extending, when the disastrous floods of 1851 and 1852 blasted these fair prospects, and not only put a stop to the extension of culture, but destroyed fully half the land which had been reclaimed, by covering it thick with sand. It is on the remaining portion only that revenue is at present levied, at a reduced rate of assessment of 8 annas per beega.

8. There are a few patches of cultivation near Boolah Khan, Dumanch, and Kurchat, near Pokrun, all places on or near the direct route leading to Sehwan. The land in these localities has been granted free of tax for five years, in the hope that at the expiration of that period the people will have become attached to the soil, and disinclined to revert to their former nomadic habits. Great benefit is derived by travellers even from these small cultivated patches, and I

would recommend that such of them as belong to Government (some belong to the Jagheer of Mulk Sirdar Khan Noonreea) be granted rent-free in perpetuity to their present holders and their heirs.

9. As you are, I think, from personal observation, acquainted with these highlands, it seems unnecessary to offer any lengthened description of the country or of its inhabitants. I will therefore confine my report to a brief sketch of the more prominent natural features of the country, and of the principal tribes who inhabit it.

10. The southern portion consists of extensive plains, divided one from the other by low ranges of hills, running parallel in some parts, and in others diverging like the sticks of an open fan. At Peer Mungah the hills form a series of concentric circles round a lofty peak, and which peculiar formation is evidently the effect of volcanic action at some distant period of the world's history.

11. The plains or valleys between the several ranges of hills are usually intersected by the wide sandy bed of a mountain stream, which, except after rain, presents a dry, unpromising surface, beneath which, however, at the depth of a few feet, abundance of excellent water is found. The plains on either side, after seasonable showers, produce abundance of forage, and are frequented at such seasons by vast herds of cattle brought from the Valley of the Indus and other parts.

12. The Hubb, Mulleer, Bharun, and Mohul rivers are usually well supplied with water throughout the year. Water is found at short intervals preserved in deep pools, and occasionally in running streams of considerable length and depth. A wide extent of land, capable of cultivation, is lying waste in the valleys of all these rivers, which might be brought under the plough were means taken to raise the water to a level with the banks on each side, and which might be done by building weirs across in favourable localities.

13. The central portion of the highlands presents far bolder and more picturesque views and scenery than the southern districts. The hills here attain the size and altitude of mountains, while the valleys are deeper and of wider extent than those below. The scenery of this division is often very beautiful.

14. The northern portion consists of vast mountain ridges of limestone, rising abruptly from the plains, and usually found running parallel with each other from north to south. The valleys or glens between these mountain ridges are deep and narrow, and the descent

into them is difficult, and often impossible, without ropes, in consequence of their precipitous sides. The bottoms are filled with huge boulders of rock, brought down by the torrents which, after heavy rain, rush through these narrow defiles with irresistible force.

15. The above hasty sketch will probably suffice to show that in few regions could a greater variety of wild and beautiful scenery be met with than is presented in many parts of these highlands. The Valley of the Mohul is extremely beautiful. It is about twenty miles in length by ten in breadth, the river dividing it nearly in the middle. The Pucheran Hills bound it on the left side, while the lofty mountain of Meher, with its scarped and precipitous sides, and others of a similar character, enclose it on the right. The valley itself is considerably raised, and must be upwards of 800 or 1,000 feet above the level of the sea. The air was pure and bracing in November, and the climate throughout the year is much praised by the inhabitants. The soft purple tints exhibited towards sunset in the clear atmosphere of this beautiful valley, and in other parts of the central division, would require the genius of a Claud adequately to portray them, while the dark glens and frowning precipices of the north would require the bold tinting of a Rosa to do full justice to their wild and savage grandeur.

16. The principal rivers are the Hubb, the Bharun, and the Mohul. The Hubb has a course of upwards of 300 miles, the Bharun of about 90, and the Mohul of about 70 miles. The Hubb enters the sea near Cape Monze; the Bharun, the Indus, about 10 miles north of Jerruck, and the Mohul, after receiving several tributary streams, enters the Ghara Creek near Ghizree Bunder under the name of the Mulleer. Near Pokrun the level of the country obtains its greatest elevation. Low, transverse ridges of rock there cross the valleys, and cause all the rivers and streams north of that place to flow towards the north, and to pour their waters into the Munchur Lake; while all those to the southward of that point either break through the eastern barrier, and enter the Indus, or hold on their tortuous course to the Ghara Creek or to the sea.

17. The principal mountains are the Kara, Soorjano, Soombuk, Eree, Runnee, and Lukkee, which form one almost continuous range, and divide the highlands from the Verow Plain and Valley of the Indus. The Kamboo, Meher, Pucheran, and Mohul ranges raise their lofty ridges in the centre, while the magnificent Keertur raises

its giant form, and stretches away to an interminable distance towards the north.

18. The population scattered over this extensive district is miserably scanty, averaging little more than  $2\frac{3}{4}$  to a square mile. The tribes inhabiting the southern and central districts are for the most part Sindees, and claim descent from the great Summah tribe, which for some centuries ruled in Lower Sind. The northern division is inhabited chiefly by Beloochees of the Gubbool, Rhind, and Nohanee tribes.

19. The two principal tribes in the southern and central divisions are the Noomreeas or Naomurdees, and the Jokecas. Each of these tribes is divided and subdivided into numerous branches, each deriving its name from an ancestor who claimed immediate descent from the reputed Patriarch of the tribe. Sidjeros or genealogical trees of portentous length are produced in support of these claims, which, however, on examination, are found to contain merely long strings of names, without any proofs in support of the ambitious claim, and the reputed ancestor himself is often found to be little better than a mere myth.

20. Thus the Noomreeas claim descent from a prolific old lady of Rajpoot origin, who they say became the mother of nine sons (Nao Murdees), from whom the whole of the present Noomreea tribes descend. The name of the father of these worthies has unfortunately not been handed down to posterity, and hence their enemies take advantage of this circumstance to brand the old lady's memory with much opprobrium, affirming that, although of Rajpoot origin, she was addicted to polyandrianism, and having on that account been expelled caste, sought refuge with her *nine* husbands in the wilds of Sind.

21. The first man of any celebrity amongst the Noomreeas, of whom we have any certain record, would appear to have been Ibrahim Boorfut, who flourished about one hundred and seventy years ago. He ruled the whole tribe, and transmitted his authority to his son Pahar Khan, who was succeeded by his son Izzut Khan, an active and ambitious Chieftain, who appears to have got possession of Beyla and the whole Province of Lus, and which he held till his death. He was succeeded by his son Sobdar, the father of Mulk Ahmed Khan, the possessor of the "Pug" at the time of the conquest, and who was the grandfather of the present Chief, Mulk Sirdar Khan.

22. There are at present upwards of twenty branches or subdivisions of this tribe, all claiming descent from the original Naomurdees. The subdivisions vary much in numerical strength, and the families composing them are so widely scattered, both throughout the hills and in the plains, that it is almost impossible to obtain a correct roll of any one of them. The annexed memorandum of their names and chief haunts may tend to assist future inquiry :—

- |                      |  |
|----------------------|--|
| 1st.—The Boorfut,    | inhabiting the Valleys of the Gungyaree, and<br>of the Bharun River. |
| 2nd.—The Humalance,  | ditto Valley of Mohul.   |
| 3rd.—The Bramance,   | ditto ditto of the Bharun.   |
| 4th.—The Shadad,     | ditto ditto of Khund.  |
| 5th.—The Doodra,     | ditto Pokrun and Kurchat.  |
| 6th.—The Akulance,   | ditto Plain of Peer Gybee.   |
| 7th.—The Soomera,    | ditto Valley of Bharun.  |
| 8th.—The Soharance,  | ditto Valley of Tong.  |
| 9th.—The Kasota,     | ditto Valley of Bharun.  |
| 10th.—The Bapranec,  | ditto Boolah Khan's Tanda, and Plain of<br>Verow.                    |
| 11th.—The Bawah,     | ditto Valley of Thudda.  |
| 12th.—The Kuchela,   | ditto Mukan Jurmula, near Kuddegee.                                  |
| 13th.—The Lassce,    | ditto Vale of the Hubb, and Lus.                                     |
| 14th.—The Khavera,   | ditto Khund, in the Vale of the Hubb.                                |
| 15th.—The Choota,    | ditto Valley of the Hubb.  |
| 16th.—The Hangarea,  | ditto ditto of the Hubb, and Lus.                                    |
| 17th.—The Bunsbera,  | ditto the Vale of the Guddap.  |
| 18th.—The Palaree,   | ditto ditto of Lohiach.  |
| 19th.—The Palleja,   | ditto the plains around Tatta and Jerruck.                           |
| 20th.—The Jakra,     | ditto the plains of Rhode and Komecancee.                            |
| 21st.—The Shahana,   | ditto the Vale of Mohul.   |
| 22nd.—The Lorah,     | ditto ditto of the Bharun, and plains<br>near Kotree.                |
| 23rd.—The Bundeaja,  | ditto ditto of the Hubb.   |
| 24th.—The Banjaoria, | ditto the plains near Kurrachee.                                     |

23. All these tribes acknowledge Nuwab Sirdar Khan as their Chief. He usually resides at Humalance, in the Vale of the Gungyaree, a tributary stream of the Bharun. The village is merely a collection of mat huts, and the Chief's residence is scarcely distin-

guishable from those of his followers. It consists of a few Punka mats supported on poles, with the weather side protected by a heap of camel furniture, and a few black curtains of goat-hair. Sirdar Khan occasionally resides at Kotree, where he has a substantial abode, and where, when present, he seems to take an interest both in the school and in the municipal improvements of the town. He is a young man of good character, but of no great intellectual endowments, and he seems to stand, and perhaps not without cause, in considerable dread of his uncles, Pahar and Izzut Khan, who are constantly about him, and who, from their superior age and experience, rough energy of character, and burly forms, have great influence with the tribe.

24. The Jokecas, under the rule of the Kulhoras, and probably for many years before, were the rivals of the Noomreecas, with whom they had frequent skirmishes, and in which, although numerically inferior, they almost invariably obtained the victory. Their first Chief of any note would appear to have been Jam Bejor, who obtained great celebrity by the murder of the Rana of Kukeralla, a feat which he accomplished at the instigation of Ghoolam Shah Kulhora. The Jokecas, like their neighbours the Noomreecas, claim to be of Rajpoot origin, and their aquiline features, courage, and martial bearing, certainly tend to support their claims. They are held in high repute, not only in Sind, but throughout Kattywar and Guzerat, and even in the Nizam's territory, for their courage and fidelity; and it is computed that there is seldom less than half the tribe absent from Sind in the employ of the several Governments mentioned above. The present Jam estimates the absentees at 6,000, but this is, no doubt, a great exaggeration.

25. The Jokecas chiefly inhabit the villages of the Mulleer, Runn Pittyanee, Malmooaree, and Guddap, and the intermediate country between the Ghara Creek and the Hubb. They are subdivided into numerous clans, all of which acknowledge Jam Meer Ali as their Chief. The principal of these, with the localities which they chiefly inhabit, are as follow :—

Tahir (to which clan the Jam belongs), Mulleer.

Moosa, Malmooaree and Runn Pittyanee.

Bundeeja, inhabiting Guddap.

Salar, ditto Gooja.

Mahummut, ditto Guddap.

Dagra, ditto Dumb.

|           |            |                      |
|-----------|------------|----------------------|
| Soonria,  | inhabiting | Guddap.              |
| Bund,     | ditto      | Hubb.                |
| Amcerka,  | ditto      | Kuddejee and Guggur. |
| Sahmanee, | ditto      | Mulleer.             |
| Powhar,   | ditto      | Mulleer and Guddap.  |

The Jam possesses extensive Jagheers both in the Kurrachee and Hyderabad Collectorates, and enjoys a pension of Rs. 250 per mensem. He is nevertheless so careless of his money affairs that he is always in difficulties. He usually resides at Mulleer, and, like the Noomreea Chief, is simple and unostentatious in his habits. He is now about seventy years of age, and it seemed probable that the race of Jam Bejor would become extinct in him. However, to the great surprise of all, and of none more than of the Jam himself, a son has been born to him within the last twelvemonth, which has caused much joy and congratulation throughout the tribe.

26. The Jokeeas and Noomreecas have conducted themselves well since they came under British rule, and have in many ways proved themselves useful subjects. Both tribes have abundance of cattle, which are their chief source of wealth. The ranks of our city police are almost entirely recruited from amongst them, and from the Kulmuttees, a few of whom reside amongst the Jokeeas.

27. This latter tribe, like the Beloochees of the north, claim to be of Arabian origin. They appear first to have established themselves on the Mukran Coast, whence they pushed their way into Sind, and acquired by conquest possessions on both banks of the Hubb, and in the Talooka of Sakra, where they are still very numerous. They are a well conducted, intelligent tribe, and many of them hold extensive Zemindarees both in Sakra and in Ghorabaree. Their chief wealth consists in camels, of which they have immense herds, which they keep for breeding purposes, and which they dispose of to great advantage to the Afghan merchants.

28. The chief settlements of the Belooch tribes inhabiting the northern district are at and near Pokrun, Dhul, and at Runce-ka-Kote. The inhabitants are few in number, and are chiefly of the Gubbool tribe, with a few Rhinds and Nohanees scattered amongst them. The Gubbools, by means of small earthen bunds, cultivate about 200 beegas of rain-land near Pokrun, and they also cultivate all the available land in the Valley of Dhul, which is watered by a

natural spring, and which, with the lands adjacent, I have lately, with the Commissioner's approval, granted to them on lease for a term of fifteen years, on a light cash assessment of Rs. 20 per annum. The Gubbools are rich in flocks and herds, which are their chief means of support.

29. I will now proceed briefly to state the measures which I would recommend should be adopted for the improvement of these districts. In a region intersected as this is by numerous rivers and watercourses, there ought to be no scarcity of water ; and yet this no doubt is the chief want of the districts. Thunderstorms are of frequent occurrence, and the rain descends in torrents ; but the precious element, which ought to be arrested and stored for irrigating the fruitful soil of the valleys, no sooner falls than it rushes away at headlong speed down the sandy or rocky beds of the rivers, and is lost either in the ocean or in the Indus.

30. It appears to me, then, that the *first* thing to which we should turn our attention is the erection of weirs in suitable positions in the beds of these mountain streams, by means of which considerable heads of water might be retained, and small streams might be diverted, for the irrigation of the plains on either side. In the selection of suitable localities for these weirs, considerable judgment and experience of hydraulics would be requisite, and the work could not be entrusted to any Native official.

31. The inhabitants of the hills are, it is true, for the most part a pastoral people ; but they are by no means disinclined to agriculture : and wherever water is available without any great expense being required to raise and to apply it to the land, as at the natural springs of Tong, Kurchat, and Dhul, they cultivate to the utmost of their ability. At Runee-ka-Kote and Pokrun I have also known them to incur considerable expense and great labour in the construction of watercourses for the conveyance of a small rill of water to distant plots of land. I feel convinced, therefore, that were water provided there would be no lack of willing hands to turn it to advantage.

32. In the *second* place, I would have a rough survey made of the whole district, and fix a light assessment on all grazing lands, the farm of which I would offer, in the first instance, to the Chief of the tribe now in possession. The boundaries of all these lands are well known, and are for the most part well defined. If the Chief agreed to pay the rent fixed, either by the year or on lease for a series of



years, I would allow him to make his own terms with all who wished either to cut grass or to graze cattle within his limits.

*Thirdly.*—I would recommend the construction in favourable localities, and near the larger villages, of pukka wells with troughs for watering cattle attached. The wells should, I think, be constructed only where the villagers would engage to keep them properly drawn, leaving them at liberty to apply the water not required for themselves and their cattle to agricultural or horticultural purposes. I would also have cleared roads made wherever necessary.

*Fourthly.*—Without in any way attempting to force agriculture on the people, I would assist those who required aid, and who could give security that the money would not be misapplied, with small advances for the construction of kutchha bunds for cultivation in suitable situations.

*Fifthly.*—I would endeavour to improve the breed of cattle throughout the districts, and greatly to multiply their numbers. The breeds of sheep, goats, and horses might, I think, be greatly improved.

*Sixthly.*—I would use every effort to promote education, both amongst Chiefs and people, and to bring them acquainted with the common wants and conveniences of civilised life, of which the great part of the Hillmen have at present not the most remote idea.

*Lastly,* if the above recommendations meet with your favourable approval, as it is clear that the present establishment is wholly inadequate for the performance of such important duties as would be required of them, and as it would be impossible, with my numerous other duties, for me effectually to discharge the executive duties of a homestead very little short in extent of the principality of Wales, I would beg to recommend that an additional assistant, with a suitable establishment, be allowed me, to take charge of, and to carry out, under my superintendence, the above improvements in the Highlands.

33. In the above recommendations I have, I think, embodied most of Mr. Frere's views, as gathered from personal conversations with him on the subject; and it now only remains for me to recommend to your favourable notice, as a person well fitted to take charge of the district, both in Mr. Frere's and my own opinion, Mr. Elander, my present Canal Assistant. Mr. Elander is a good draftsman and surveyor, a good practical engineer, understands the language, and

has great temper, and possesses considerable influence with Natives, of whose character he has had long experience.

34. The Naib Kardar has forwarded a statement in the form prescribed in the 5th paragraph of your letter under reply, but the details entered therein are so imperfect that I have sent it back for correction, and will forward it hereafter. By the last Census, commenced on the 29th February,—

|  |              |
|--|--------------|
| The mud houses (entered as pukka) amounted to..... | 187          |
| The kutchra, made of reeds ditto .....             | 3,322        |
| Total....  | <u>3,509</u> |

|                                      |               |
|--------------------------------------|---------------|
| The Mahomedan males amounted to..... | 8,372         |
| Ditto females ditto .....            | 5,782         |
| Total of Mahomedans.....             | <u>14,154</u> |

|                                    |              |
|------------------------------------|--------------|
| The Hindoo males amounted to ..... | 1,329        |
| Ditto females ditto .....          | 917          |
| Total of Hindoos.....              | <u>2,246</u> |

|                              |               |
|------------------------------|---------------|
| Giving a Grand Total of..... | <u>16,400</u> |
|------------------------------|---------------|

or about  $2\frac{3}{4}$  persons to a mile, supposing the district to be 6,000 square miles in extent.

35. In conclusion, I beg to apologise for the length of these observations.

I have the honour to be, &c.

(Signed) H. W. PREEDY, Major,  
Collector.

*Kurrachee, Collector's Office, 9th June 1856.*

(True copy)

L. PELLY,  
Acting Assistant Commissioner.

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No. 3389 OF 1856.

## TERRITORIAL DEPARTMENT, REVENUE.

To the ACTING COMMISSIONER IN SIND.

*Copy of the Resolution passed by Government under date 3rd September 1856, on a Letter from the Acting Commissioner in Sind, No. 265, dated the 8th July 1856, submitting a Report by Major PREEDY, Collector of Kurrachee, on the Hilly Region forming the Western part of that Collectorate.*

These papers contain very interesting information regarding the hilly region forming the western part of the Kurrachee Collectorate, in Sind.

2. The statistics of this district which have been collected by Major Preedy constitute a valuable addition to our knowledge of the pastoral tribes on our extreme western frontier. That officer's report, together with the Acting Commissioner's comments, should be printed as a number of our Revenue Selections. His Lordship in Council is inclined to the opinion expressed by Colonel Jacob, that, at least for many years to come, the principal wealth of this region must continue to be of a pastoral kind, and that it would be impolitic to endeavour to force a system of cultivation for which it is not adapted. Nevertheless, the gradual extension of the present very limited agriculture should be encouraged in favourable localities, by improving, where it can be done without much expense, the supplies of water. This, however, must probably be a work of time, and any measures undertaken by Government should be calculated to meet the demand which may spontaneously arise, rather than to create such demand.

3. The other measures advocated by Major Preedy, and concurred in by Colonel Jacob, have the entire approval of Government. The views expressed by the Acting Commissioner in the 9th and 10th paragraphs of his report appear to His Lordship in Council judicious. He sanctions the temporary employment of Captain Hodgkinson as proposed, and authorises, subject to the confirmation of the Government of India, such increase in the establishment as may from time to time be found necessary, on the understanding that the total cost of such establishment is not to exceed Rs. 205 monthly.

(Signed) H. Young,

Offg. Chief Secretary to Government.



**SELECTIONS FROM THE RECORDS OF THE BOMBAY  
GOVERNMENT.**

**NO. XXXVI.—NEW SERIES.**

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**OFFICIAL CORRESPONDENCE**

**REGARDING**

**THE FORD WAH,**

**IN THE**

**SHIKARPOOR COLLECTORATE, SIND.**

**1855-56.**

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**Bombay:**

**PRINTED FOR GOVERNMENT**

**AT THE**

**BOMBAY EDUCATION SOCIETY'S PRESS.**

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**1856.**





# THE FORD WAH, IN THE SHIKARPOOR COLLECTORATE.

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No. 230 OF 1856.

PUBLIC WORKS DEPARTMENT.

From Lieutenant Colonel JOHN JACOB, C.B.,  
Acting Commissioner in Sind,

To the Right Honorable LORD ELPHINSTONE, G.C.H.,  
Governor and President in Council, Bombay.

*Dated 5th June 1856.*

MY LORD,—I have the honour to forward a copy of official correspondence regarding the Ford Wah, or junction of the Western Narra Branch with the Gharr Canal, in the Shikarpoor Collectorate, together with a sketch map showing its position; and to recommend that, should your Lordship in Council see no objection, the papers connected with this useful work may be printed among the Selections from the Government Records.

I have the honour to be, &c.

(Signed) JOHN JACOB, Lieutenant Colonel,  
Acting Commissioner in Sind.

*Commissioner's Office, Kurrachee, 5th June 1856.*

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*Extract Paragraphs 1 to 19 of a Letter, No. 383 of 1854, in the General Department, dated 15th November 1854, from the Deputy Collector of Larkana to the Collector, Upper Sind.*

SIR,—I have the honour to forward my usual annual canal clearance estimate.



2. A reference to the same will show that I have set down the canal clearance for the Gharr this year at Rs. 5,000, including in it a new canal proposed to be dug from the Narra to the Gharr.

3. The Amul Rao mouth, which was widened by your orders last year, requires little or nothing done to it. The Wukkur mouth requires to be here and there cleared, the cost for both being estimated at Rs. 600.

4. The usual number of labourers supplied for the Gharr amounts to 1,026, and this year it is the wish of the Zemindars that, of the above number, only some 200 should be sent to the mouths of the Gharr, to carry out whatever clearing is wanted, the rest being employed in excavating a new canal from the Narra to the Gharr; and for this reason I have shown the expenses likely to be incurred on this work in the Gharr clearance.

5. In addition to the 800 labourers that would thus be available for the proposed canal, those hereafter benefiting from it will contribute some 200 labourers, making in all 1,000.

6. The following rough chart shows the position of the Gharr and Narra, with other particulars. [See annexed Sketch Map.]

It is proposed to take the canal from the village of Bindee, Z, and to carry it straight to the village of Leinah Samptiah, Y, a distance of about five miles, and to dig it at an average depth of  $9\frac{1}{2}$  feet, and breadth 30 feet.

7. It is calculated that 1,000 men can excavate this channel in about four months; they are to be subsisted in the same way as the Gharr labourers have annually been; Darogahs, Moonshies, &c. to be appointed as before.

8. The cost to Government is set down at Rs. 4,400, which I think will suffice.

9. The Gharr canal clearance expenses for two former years are as follows :—

|               |           |    |   |
|---------------|-----------|----|---|
| 1852-53 ..... | Rs. 2,265 | 8  | 3 |
| 1853-54 ..... | 3,030     | 11 | 2 |

So that the canal clearance for the present year (1854-55) will be only some Rs. 2,000 in excess of last year; against which I now beg leave to mention a few of the advantages likely to accrue from the opening of the new canal.

10. North of the point Y, where it is proposed to connect by the new canal the Narra and Gharr, the "Kuruch" of water from the

latter-named stream is very great ; indeed, such a quantity being drawn off by its large branches, as the Nusrut, the Meer Wah, the Hcera Wah, and the Humeer, that a scarcity has for the last two seasons been felt for many of the small canals in the Kumber and Nusseerabad Kardarates, including some in the Larkanah Kardarate south of the intended junction of the Narra and Gharr ;—indeed I attribute the quantity of “Kooshkie” last season partly to the above causes.

11. The assistance that may be anticipated to these districts, by throwing some of the Narra water into the Gharr, will be great.

12. The Narra has the last few seasons flowed with an unusual body of water, caused for the most part by direct overflows from the river ; indeed, in some places the rush into this stream was so great that it was unable itself to carry off the supply, and was obliged, therefore, to disgorge the overplus into the river again. Had the mouth of the Narra been this year bunded up, such was the force and extent of the Leyts,\* that, I believe, during the height of the inundation no decrease in its depth of water would have been perceptible.

13. This excess of water in the Narra does a great deal of harm, rendering even the smaller branches from it almost unmanageable, causing the canal to overflow its banks in every direction, and thus to swamp much valuable land. My own experience when in charge of the Mehur Deputy Collectorate makes me feel sure that a diminution in the Narra water will be hailed as a great boon by the bulk of the cultivators in those districts.

14. My object is to draw off this excess, where it is now positively hurtful, and, by carrying it into the Gharr, make it useful in watering many a broad beega of land in these districts.

15. Not only will the lands south of the point Y be provided with an additional flow of water, but those now lying waste between Y and Z, simply on account of there being no means of irrigating them, will at once be brought under cultivation ; and from personal inquiry I find that during Khureef 1266 and Rubee 1267, 2,000 beegas of land, between Y and Z, hitherto uncultivated, will be sown, and an additional 1,000 beegas in Khureef 1267.

16. I can of course give no approximate of the increased cultiva-

\* Direct overflow from the river.

tion to be expected on those lands south of Y, but on the two Koors alone, viz. the Datab and Shaee, in the Kumber Kardarate, I apprehend that next Khureef, 1266, a considerable increase will be apparent.

17. Apart from all advantages likely to be realised to the revenue, if only for the easy transit of goods during the inundation months, from and to Larkanah and the various towns on the Narra with Melur on the Kukole, by boat traffic, this canal should, I think, at once be made. A boat leaving Larkanah, and bound, say for Phurrery, has, under the present arrangement, to track up to the mouth of the Gharr, a distance of 38 miles, taking, perhaps, six or seven days, then to drop down the river to the Narra's mouth, and, after entering the Narra, float down to Phurrery, taking another three days,—in all say ten days. With the new channel dug, a boat ought to go from Larkanah to Bindee in one day and a half, and then drop down to Phurrery in another day,—thus making a difference of some seven days in a boat going between Larkanah and Phurrery by the present and proposed route.

18. I trust I have clearly shown the advisability of the work in question, and I solicit your permission to commence the same on or before the 1st December next.

19. Any delay will prevent the canal being ready by next inundation, as well as hinder greatly the cultivation for the coming Peshrush.

(True extract)  
(Signed) ST. CLAIR FORD, Lieutenant,  
Deputy Collector.

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No. 2638 OF 1854.

REVENUE DEPARTMENT, PUBLIC WORKS.

To the COMMISSIONER IN SIND.

SIR,—In transmitting the accompanying correspondence from the Collector, Upper Sind, I have the honour to state that, provided the levels of the country and of the two streams, the Gharr and Narra, when in flood, are favourable, the project seems to me to be a very desirable one. There is ~~no~~ doubt that, arising from some cause, which I believe will be found to arise from the silting up of the lower

part of the Narra and of its outfall the Arul, the upper part of that stream overflows the Mehur Districts most injuriously for the revenue ; and if the cut proposed will carry off that surplus water, it will relieve the tendency to flooding below its mouth, and give an additional quantity of water to the Gharr, which, however, should be cleared below the junction, so as to admit of the increased volume of water, otherwise the stream in the Gharr above that point will be checked, and a deposit will take place.

2. It is essential, however, that the flood-level of the two streams at the points where the new cut would unite them, and the section of the country, be first ascertained ; and as Mr. Hardy will, by this time, I hope, be at Sukkur, he might, if the Collector thinks fit, devote his attention to this point before he does anything else.

I have the honour to be, &c.

(Signed) H. B. TURNER, Lieutenant Colonel,  
Superintending Engineer in Sind.

*Kurrachee, 24th November 1854.*

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No. 2655 OF 1854.

REVENUE DEPARTMENT.

True copy transmitted for the information of the Collector, Upper Sind, with reference to his memorandum No. 931, of the 18th instant.

(Signed) H. B. TURNER, Lieutenant Colonel,  
Superintending Engineer Sind Division.

*Kurrachee, 24th November 1854.*

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No. 953 OF 1854.

REVENUE DEPARTMENT.

True copy forwarded to Lieutenant Ford, with reference to his proposal of uniting the Narra and Gharr.

His attention may be necessary to the point mentioned in the conclusion of paragraph 1.

(Signed) T. R. STEWART, Major,  
Collector, Upper Sind.

*Shikarpoor Collector's Office, 27th November 1854.*

No. 414 of 1854.

GENERAL DEPARTMENT.

From the DEPUTY COLLECTOR, LARKANAH,

To the COLLECTOR, UPPER SIND.

SIR,—With reference to your endorsement No. 953 of 1854, in the Revenue Department, dated 27th November 1854, accompanying copy of Superintending Engineer's report No. 2638 of 1854, in the Revenue Department, dated 24th November 1854, I have the honour to state that I hope in a few days to forward an estimate of the cost of clearing the Gharr south of the junction.

2. The line, where it is proposed to take the canal, has been cleared of jungle, and made perfectly straight between the Narra and Gharr; and this morning I proceeded to Akil, and, in company with several Zemindars, carefully examined the ground, and made every possible inquiry as to the levels, &c., from which I may safely report that the levels of the country and of the two streams are favourable.

3. I have always found the Zemindars particularly knowing as to the levels of the country,—indeed one who was with me this morning would have been rather glad to have discovered some difficulty; but he, with the rest, agreed that the line was most favourable.

4. It must be remembered that it is very improbable that 800 labourers can again be spared from the annual Gharr clearance, or that the Zemindars would be willing to give them; so that if we miss this opportunity, the expenses of the work will be greatly increased should it be hereafter carried out.

5. I observed many a beega of land that can be cultivated from Moke. I should say if the cut is made, and if commenced at once, those whose lands border on the proposed new canal will immediately make arrangements for digging new Kurriahs, &c. Any delay will prevent these desirable objects being carried out.

6. I respectfully beg to state that, unless the work is commenced before the 15th of this month, it cannot, I fear, be ready before the next inundation.

7. The Zemindars have agreed to give at once 800 labourers, and in two or three months to increase the number to any amount, so as to ensure the work being finished before next flood.

8. I may also mention that, consequent on the anticipated extra

volume of water in the Gharr, I have had applications for leave to dig a new canal from it opposite to where the junction is to be, to bring under cultivation waste lands in Delh Lahoree. Probably some assistance will be necessary from Government, on which a report will be made as soon as the new cut is ordered to be commenced.

9. Awaiting your speedy orders to begin,

I have the honour to be, &c.

(Signed) ST. CLAIR FORD, Lieutenant,  
Deputy Collector.

*Larkannah, Deputy Collector's Office, 2nd December 1854.*

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*Extract Paragraph 2 of a Letter, No. 978 of 1854, in the Revenue Department, dated 2nd December 1854, from the Collector of Upper Sind to the Deputy Collector of Larkannah.*

2. The new canal, proposed to feed the Gharr from the Narra, has, in a measure, been sanctioned by higher authority : some little delay may occur before the Surveyor is supplied with a levelling instrument.

(True extract)

(Signed) ST. CLAIR FORD, Lieutenant,  
Deputy Collector.

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No. 990 OF 1854.

GENERAL DEPARTMENT.

From the COLLECTOR, UPPER SIND,

To the DEPUTY COLLECTOR, LARKANAH.

SIR,—With reference to your letter No. 414, of the 2nd instant, and 6th paragraph thereof, I have the honour to inform you that, in the absence of any levelling instruments, I am unable to say whether the line of junction proposed will answer.

2. As, however, the Zemindars wish to begin it, they may do so on their own responsibility ; but if it should be proved by the

respective levels of the two canals, when taken, that the junction ought not to be made, the work will of course be stopped.

I have the honour to be, &c.

(Signed) T. R. STEWART, Major,  
Collector, Upper Sind.

*Camp Donkun, Collector's Office, 6th December 1854.*

No. 3538 of 1854.

REVENUE DEPARTMENT.

From the COMMISSIONER IN SIND,

To the SUPERINTENDING ENGINEER IN SIND.

*Dated 29th November 1854.*

SIR,—In reply to your letter as per margin, I have the honour to inform you that I quite concur in the suggestion contained in your 2nd paragraph.

No. 2638, of the 24th November, on the proposition by Lieutenant Ford to throw an increased body of water into the Gharr.

I have the honour to be, &c.

(Signed) H. B. E. FRERE,  
Commissioner in Sind.

No. 2680 of 1854.

REVENUE DEPARTMENT, PUBLIC WORKS.

True copy transmitted for the information of the Collector, Upper Sind, with reference to his memorandum No. 931, of the 18th November 1854.

(Signed) H. B. TURNER, Lieutenant Colonel,  
*Hajeepoor, 4th December 1854.* Superintending Engineer, Sind.

No. 996 of 1854.

REVENUE DEPARTMENT.

True copy transmitted to the Deputy Collector of Larkanah, with reference to his letter No. 383 of 1854.

(Signed) T. R. STEWART, Major,  
Collector, Upper Sind.

*Camp Ruttadhera, Collector's Office, 7th December 1854.*

No. 61 OF 1855.

REVENUE DEPARTMENT, PUBLIC WORKS.

To the COLLECTOR OF SHIKARPOOR.

SIR,—Having ascertained from Mr. Hardy, Canal Surveyor, that a canal, to join the Gharr and Western Narra, has been commenced contrary to my opinion that the comparative level of the two streams should first be ascertained, and in which the Commissioner concurred (vide his letter No. 3538, of the 29th November, endorsed with my memorandum No. 2680, of the 4th ultimo), I have the honour to inform you that if, as is very probably the case, the flood-line in the Gharr, at the point where the junction is to be made, should be higher than the corresponding line in the Narra, the effect will certainly be to impoverish the stream in the Gharr, and to increase the flooding in the Narra.

I have the honour to be, &c.

(Signed) H. B. TURNER, Lieutenant Colonel,  
Superintending Engineer Sind Division.

*Sukkur, 12th January 1855.*

No. 5 OF 1855.

From Mr. W. S. HARDY,

Canal Surveyor,

To Major T. R. STEWART,

Collector, Upper Sind.

SIR,—I think the new canal we are now digging had better be stopped, as I am almost certain the Gharr *is a rise*; if so, we are working entirely in the dark, and also be a great loss to Government if carried through and found impracticable.

On the arrival of my instruments I will immediately level the line, and give the bed its proper slope. All orders that you may give shall be strictly adhered to.

If the fall of the present line be not sufficient, the tail can be slightly turned.

I have the honour to be, &c.

(Signed) W. HARDY,  
Canal Surveyor, Shikarpoor Collector.

*Camp Orangabad, 13th January 1855.*



No. 58 or 1855.

## REVENUE DEPARTMENT.

From the COLLECTOR, UPPER SIND,

To the SUPERINTENDING ENGINEER IN SIND.

SIR,—In reply to your letter noted in the margin, I have the honour to inform you that I was aware the execution of the work in question was to depend on the result of the levels of the two streams, and I was most anxious to have the test made in order that the work might be done.

No. 61, of 12th January 1855, on the subject of the new Canal between the Narra and the Gharr.

2. A thousand men had been collected by the Zemindars, more anxious to carry it out than I have ever in any instance seen. No instruments were forthcoming. A Surveyor was on the spot, and he, as far as he could judge, was in no way apprehensive of any failure in the level of the country.

3. The question, therefore, was, were the labourers to be sent back, and the work to be set aside for another year; for it was calculated that the above number of men could scarcely finish the work in four months, but that double the number should be provided in the last available month, if circumstances should demand it.

4. The Deputy Collector was informed that, under the circumstances above stated, the Zemindars should be responsible if the levels should not answer, and that they might proceed with the work if they wished. It does not follow that either the Gharr or Narra should suffer injury if the levels of these two courses do not answer; for the work in question these two courses can be securely bounded.

5. The circumstance was reported briefly by me to the Commissioner, and it ought, perhaps, also to have been reported to you.

6. I am now, however, surprised to receive a letter from the Surveyor, dated Orangabad, the 13th instant (the day after that of your letter under reply), informing me that he is "almost certain the Gharr is a rise," and requesting that the work may be stopped. He is, and has for some time been, far removed from the locality, and it appears odd that he should now express doubts on the subject. But it is evident that no person could decide the point without instruments, and Mr. Hardy can, therefore, in no way be answerable for the results of the work.

7. It is calculated that the canal will cost the Zemindars, in labour, little under Rs. 18,000 or Rs. 20,000, and I think you will concur with me in thinking, that when they place confidence in their own notions of levels, and undertake such a work, it would scarcely be right in the Government officers to put a stop to it, unless on some certain grounds of objection or impracticability.

I have the honour to be, &c.

(Signed) T. R. STEWART, Major,  
Collector, Upper Sind.

*Camp Dejee, Collector's Office, 18th January 1855.*

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No. 59 OF 1855.

GENERAL DEPARTMENT.

True copies of correspondence as per margin forwarded to Lieutenant Ford, for his information, with reference to my letter to his address, No. 990, of the 16th December 1854.

No. 61 of 1855, from the Superintending Engineer in Sind; No. 5 of 1855, from Mr. Hardy, Canal Surveyor; No. 58 of 1855, from the Collector, Upper Sind.

(Signed) T. R. STEWART, Major,  
Collector, Upper Sind.

*Camp Dejee, Collector's Office, 18th January 1855.*

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No. 57 OF 1855.

REVENUE DEPARTMENT.

From the COLLECTOR, UPPER SIND,

To the DEPUTY COLLECTOR, LARKANAH.

SIR,—With reference to past correspondence on the subject of the new canal uniting the Narra and Gharr, I have the honour to suggest that as much as possible of the work be confined to the upper portion of the new cut, in order that the lower portion may be executed after the levels shall have been tested, when, if necessary, any alteration may be made in the present line, should it be found faulty.

I have the honour to be, &c.

(Signed) T. R. STEWART, Major,  
Collector, Upper Sind.

*Camp Khyrpoor, Collector's Office, 19th January 1855.*

No. 20 of 1855.

## REVENUE DEPARTMENT.

From the DEPUTY COLLECTOR, LARKANAH,

To the COLLECTOR, UPPER SIND.

SIR,—I have the honour to acknowledge the correspondence regarding the Gharr and Narra junction.

2. I may mention that the Zemindars have told me the canal, they think, ought, at its tail, to be turned round by Dhurya Khan Samptiah's village, where it will have a much greater fall.

3. As you say, no one can decide the point without instruments ; still we may take it for granted that the Zemindars would not be so anxious to dig the canal if they did not know it would run the right way ; and I would observe that there are at present some canals running from the Narra, watering lands near the Gharr, which shows pretty well where the rise is.

4. The Agamanee and other Zemindars have agreed to cultivate lands waste for years past from Kurriahs cut from the new canal, and have actually commenced digging them.

5. Your orders, contained in letter No. 57 of 1855, shall be attended to ; but I beg that no stop may be put to the work till *it is clearly* proved the Zemindars are in the wrong ; as doing so would do much harm, and upset many arrangements I am making for cultivating waste lands in the Kumber Kardarate, on the tails of the Koors, consequent on the anticipated extra volume of water.

I have the honour to be, &c.

(Signed) ST. CLAIR FORD, Lieutenant,

Deputy Collector.

*Camp Soojawal, Deputy Collector's Office, 23rd January 1855.*

No. 153 of 1855.

## REVENUE DEPARTMENT.

To the COLLECTOR, UPPER SIND.

SIR,—I have the honour to acknowledge the receipt of your letter No. 58, of the 18th instant, and, with reference to paragraphs 2 to 4,

beg to state that I was previously under the impression, from the memorandum received with your letter of the 4th instant, that 826 of the 1,026 labourers usually employed on the Gharr, or more than four-fifths, with, I conclude, a similar proportion of Rs. 5,000, say Rs. 4,000, were to be employed on this new cutting : if, then, the level should prevent the work effecting the object intended, Government would, I conceive, be losers to the extent of Rs. 4,000, and the value of the work of 826 labourers for the season.

2. From the latter part of your letter under reply, I now imagine that I was mistaken, and that the labourers employed on the new cutting are extra, and paid by the Zemindars ; in which case, as by closing up the two ends of the canal all injury from it can be prevented, I quite concur with you that it was advisable to allow the Zemindars to expend their own labour in the manner they have done.

3. My former letter was written under the apprehension that Mr. Hardy might have offered some opinion which led to the work being commenced before the levels had been ascertained ; and as I felt sure, if he had done so, the opinion was given on insufficient grounds, I thought it advisable to explain to you that, without the use of instruments, it was impossible to form any correct opinion of the levels, and that, if they were not favourable, the work, if completed, would have an injurious effect ; and I advised Mr. Hardy, if he had said anything calculated to mislead you, at once to inform you that, without ascertaining the difference of level, it was impossible for any one to judge in which direction the water would flow.

4. I hope to be in the Larkanah Districts myself about the 10th proximo, and will then ascertain the point definitively.

I have the honour to be, &c.

(Signed) H. B. TURNER, Lieutenant Colonel,  
*Camp Shereghur, 26th January 1855.*      Suptg. Engineer in Sind.

No. 137 OF 1855.

REVENUE DEPARTMENT.

True copy forwarded to Lieutenant Ford, Deputy Collector of Larkanah, with reference to previous correspondence on the same subject.

(Signed) T. R. STEWART, Major,  
 Collector, Upper Sind.

*Camp Oobowra, Collector's Office, 14th February 1855.*

No. 39 OF 1855.

## REVENUE DEPARTMENT.

From the DEPUTY COLLECTOR, LARKANAH,

To the COLLECTOR, UPPER SIND.

SIR,—The Superintending Engineer in Sind having a few days since taken the levels of the country and of the two streams, the Gharr and Narra, pronounced the project of uniting the same favourable, and the work is therefore in full progress.

2. The total cost of the Ford Wah will be Rs. 23,466.

3. Of the labourers employed, Government has the right to the work of 825 for four months (this being the number taken from the Gharr mouth clearance, which usually lasts about that period), subsisting them, and giving Darogahs, &c. in the usual way.

4. The expenses to the Zemindars for these 800 men would be Rs. 12,375, and to Government Rs. 3,500.

5. Now subtract the Rs. 12,375 from the Rs. 23,466, and we have Rs. 11,091 as an extra amount to be laid out this year by the Zemindars on the new cutting.

6. I would now suggest that of this Rs. 11,091 Government bear Rs. 5,500, which, with the Rs. 3,500 shown in paragraph 4, gives Rs. 9,000 as the Government share.

7. Of the Rs. 9,000, Rs. 4,400 has already been sanctioned, leaving Rs. 4,600, for which sanction is now solicited.

8. There can be no doubt that the canal will throw a large extra supply of water into the Gharr, and be very useful for boat traffic, &c.

9. I am aware I at first recommended that subsistence only should be granted, which, with pay to Darogahs, &c. I calculated would cost Rs. 4,400; however, I now find that some 187,733 men will be required for the work, whose subsistence, with Moonshes, &c. would amount to Rs. 6,000, or Rs. 1,600 over my canal clearance estimate.

10. I need say nothing as to how the work has been and is being executed, as I hope you will inspect it in a few days.

I have the honour to be, &c.

(Signed) ST. CLAIR FORD, Lieutenant,  
Deputy Collector.

*Larkanah, Deputy Collector's Office, 20th February 1855.*

No. 820 OF 1855.

## REVENUE DEPARTMENT.

From the COMMISSIONER IN SIND,  
To the COLLECTOR OF SHIKARPOOR.

SIR,—I have the honour to acknowledge the receipt of your letter as per margin, and, in reply, to inform you that the work in question is provisionally sanctioned, in anticipation of the approval of Government, to whom it will be necessary to apply for sanction, as the sum far exceeds what I have power to sanction, either from the annual grant for canals, or from any other source. I request, therefore, that Lieutenant Ford will favour me at his earliest convenience with a concise statement, showing, for the information of Government, the length and sectional dimensions of the canal, the total cost and proportion to be borne by Government and the Zemindars respectively, and the probable returns.

I have the honour to be, &c.

(Signed) H. B. E. FRERE,  
Commissioner in Sind.

*Commissioner's Office, 9th March 1855.*

No. 80 OF 1855.

## GENERAL DEPARTMENT.

From the DEPUTY COLLECTOR, LARKANAH,  
To the COLLECTOR, UPPER SIND.

SIR,—With reference to the Commissioner's letter No. 820 of 1855, in the Revenue Department, dated 9th March 1855, and to mine as per margin, I have the honour to forward the information required, as per statement attached.

No. 39 of 1855, in Revenue Department, dated 20th February 1855, regarding sanctioning an extra Rs. 4,600 for the new Canal between the Narra and the Gharr.

2. In the 2nd paragraph of my letter, quoted above, I set down the total sum at Rs. 23,460, but this was estimating at the two-anna rate; but I have since found

the Zemindars paid their labourers higher wages, which has thrown out my former calculation.

3. The Government share is still Rs. 9,000, of which you are aware Rs. 4,400 has been sanctioned, leaving Rs. 4,600 to be so.

4. I may briefly sum up the advantages of the work as follows :—

1st.—To decrease the floodings from the Narra annually, so destructive to the Mehur Districts.

2nd.—To increase the volume of water in the Gharr, and thereby irrigate a larger area of land in the Talookas south of the junction than heretofore.

3rd.—To bring under cultivation several thousands of beegas of the Dehs through which the canal runs, now lying waste.

N.B.—Of these lands (waste), 4,500 beegas have been given in Putta to cultivate next Khurcef, 1266.

4th.—The easy transit of goods by boat traffic from and to Larkanah and the towns on the Narra.

I have the honour to be, &c.

(Signed) ST. CLAIR FORD, Lieutenant,  
Deputy Collector.

*Larkanah, Deputy Collector's Office, 28th March 1855.*

No. 114 of 1855.

GENERAL DEPARTMENT.

From the DEPUTY COLLECTOR, LARKANAH,

To the COLLECTOR, UPPER SIND.

SIR,—I have the honour to report, for your information, that the Ford Wah was completed yesterday evening.

2. I inspected the work along its whole length this morning.

3. Orders have been issued to throw open the mouth of the Narra.

I have the honour to be, &c.

(Signed) ST. CLAIR FORD, Lieutenant,  
Deputy Collector.

*Larkanah, Deputy Collector's Office, 17th April 1855.*

No. 423 of 1855.

REVENUE DEPARTMENT.

From the OFFICIATING COLLECTOR, UPPER SIND,

To the DEPUTY COLLECTOR, LARKANAH.

SIR,—In forwarding the accompanying copy of reply No. 1435, dated 30th ultimo, as per margin, from the Commissioner in Sind, I have the honour to inform you that I entirely concur in the sentiments expressed therein.

I have the honour to be, &c.

(Signed) R. COWPAR,  
Offg. Collector, Upper Sind.

*Sukkur, Collector's Office, 5th May 1855.*

No. 1435 of 1855.

REVENUE DEPARTMENT.

*Dated 30th April 1855.*

*Reply of the Commissioner in Sind to No. 175, of the 20th April 1855, from the Officiating Collector of Shikarpoor, giving cover to a Letter from Lieutenant FORD, Deputy Collector, reporting the completion of the Ford Wah.*

The completion is very satisfactory, and creditable to Lieutenant Ford.

(Signed) H. B. E. FRERE,  
*Kurrachee, 30th April 1855.* Commissioner in Sind.

*Extract from a Memorandum on Canals, No. 340 of 1855, in Revenue Department, dated 25th September 1855, by Lieutenant ST. CLAIR FORD, Deputy Collector of Larkanah.*

The Ford Wah has, however, more than answered the expectations regarding the increased volume of water in the Gharr, as we find that



north of the junction, at the village of Dhurya Khan Samptiah, the Gharr has, at the height of the inundation this year, flowed with two feet less water than last, whereas south of the junction, the Larkana gauge shows that the Gharr water has risen four inches this year higher than it did last. This proves that the Ford Wah caused the Gharr to rise over two feet above what it would have done had it not been dug. Giving a rough guess, it may be set down that this extra two feet will make about Rs. 80,000 difference in the revenue of those lands watered by the Gharr and Ford Wah, and this sum is, I think, within the mark. The cultivation on the banks of the Ford Wah has not been nearly as much as was expected, only some 600 beegas having been brought under the plough. There are good reasons for this, however : in the first place, the water entering the canals so late, prevented any Peshrush cultivation, and when at last it did come, it soon left again ; added to which, the heavy rain that fell during the few days the river remained at its full height greatly hindered the Khureef sowing. Again, the Ford Wah runs at a very rapid rate, having a fall of nearly two feet a mile, so that of course the branch canals from it, not being so favoured in this respect, gave but a scanty supply of water to the Zemindars who dug them, and, where lands adjoin them, nearly the whole volume of water that flowed from the Narra being carried into the Gharr.

The Zemindars one and all are much pleased with the work, and many declare that but for it they would nearly have been ruined, as they had laid out thousands of rupees in seed, &c. which would all have been lost to them but for the timely supply of water from the Ford Wah. As they bore the greater part of the expense of this cutting, their being satisfied is the best proof of the advantages or otherwise accruing from it.

The Ford Wah was commenced at the latter end of December 1854, and finished in the following April. It cost the Zemindars Rs. 19,560 ; Government has already given Rs. 4,400, and Rs. 4,600 remains to be sanctioned.

(True extract)

(Signed) ST. CLAIR FORD,  
Deputy Collector.

No. 364 of 1855.

## GENERAL DEPARTMENT.

From the DEPUTY COLLECTOR, LARKANAH,

To the COLLECTOR, UPPER SIND.

SIR,—A sum of Rs. 4,600 still remains to be sanctioned for the Ford Wah : may I request you will kindly let me know when this amount is likely to be allowed.

I have the honour to be, &amp;c.

(Signed) ST. CLAIR FORD, Lieutenant,  
Deputy Collector.

*Larkannah, Deputy Collector's Office, 13th October 1855.*

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No. 457 of 1855.

## REVENUE DEPARTMENT.

From the DEPUTY COLLECTOR, LARKANAH,

To the COLLECTOR, UPPER SIND.

SIR,—The Superintending Engineer in Sind having yesterday inspected the Ford Wah, suggested that the banks should be repaired where any damage had been done during the late inundation, and recommended several other minor repairs.

2. The Zemindars benefiting by this canal are willing to give 200 labourers to carry out the requirements, provided Government will give the usual grain subsistence, and I have to solicit Rs. 700 towards thus paying the labourers, Darogahs, &c.

I have the honour to be, &amp;c.

(Signed) ST. CLAIR FORD, Lieutenant,

*Larkannah, 28th December 1855.*

Deputy Collector.

No. 460 of 1855.

## REVENUE DEPARTMENT.

From the DEPUTY COLLECTOR, LARKANAH,

To the COLLECTOR, UPPER SIND.

SIR,—With reference to previous correspondence, I have the

honour to request that the sum of Rs. 4,600, which still remains to be sanctioned for the Ford Wah, may be granted at an early date.

2. I beg to append an extract regarding the work from a memorandum on canals improved or dug last cold season in this district, forwarded to your office in September last.

3. It may be observed that Colonel Turner, Superintending Engineer in Sind, inspected the canal a few days since, and I have reason to believe he was much pleased with the same.

Colonel Turner suggested that the banks should be repaired where they have been cut into during the past inundation, and the same will be at once carried out. He also was of opinion that a very large body of water must have been directed into the Gharr by the new cutting.

4. I have little doubt myself, that but for the timely aid given by the Ford Wah, the Nussecrabad and Kumber Kardarates would have suffered great losses from want of water, and the large rice tracts that enrich these charges have dried up entirely.

I have the honour to be, &c.

(Signed) ST. CLAIR FORD, Lieutenant,

*Larkana*, 29th December 1855.

Deputy Collector.

*Extract Paragraphs 9 and 10 of Letter No. 44, dated 7th January 1856, from Lieutenant Colonel TURNER, Superintending Engineer in Sind, to the Commissioner in Sind.*

9. The repair of the banks of the Ford Wah is very necessary. When I levelled down it last year, and found the fall so great, I anticipated that it would scour, and so informed Lieutenant Ford. If the banks be not protected, I think this channel will greatly increase, and affect the value of the lands on the Narra. The sum asked is very moderate.

10. I therefore recommend that the following sums be sanctioned :—

|  |           |
|--|-----------|
| For bunds in the Mehur, Pyr and Kukkur Districts . . . | Rs. 4,840 |
| For repairing or bunding the Bulrajee Bund . . . . .   | 1,850     |
| Repairing sluices on the Pyr Bunds . . . . .           | 350       |
| For repairing the Ford Wah Bunds . . . . .             | 700       |

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In all . . . . Rs. 7,740

No. 103 OF 1856.

REVENUE DEPARTMENT.

True extract forwarded to Lieutenant St.Clair Ford, Deputy Collector of Larkannah, for his information and guidance.

(Signed) T. R. STEWART, Major,  
Collector, Upper Sind.

*Collector's Office, 23rd January 1856.*

No. 68 OF 1856.

REVENUE DEPARTMENT.

From the DEPUTY COLLECTOR, LARKANAH,

To the COLLECTOR, UPPER SIND.

SIR,—With reference to former correspondence regarding the Ford Wah, and to the sum of Rs. 700 lately given for certain necessary repairs to this canal, I beg to state that I was under the impression the Rs. 4,600 provisionally sanctioned by the Commissioner in Sind would be at once allowed, and it was with this hope the Zemindars were willing to furnish their share towards the work.

2. Such being the case, I have again to request that the Rs. 4,600 may be at once granted, or the season will be past for the canal clearances before anything can be done.

I have the honour to be, &c.

(Signed) ST. CLAIR FORD, Lieutenant,  
*Larkannah, 12th February 1856.* Deputy Collector.

No. 675 OF 1856.

PUBLIC WORKS DEPARTMENT.

From the ACTING COMMISSIONER IN SIND,

To the COLLECTOR OF SHIKARPOOR.

SIR,—In forwarding the annexed copy of my letter noted in the margin, I have the honour to request that the sum of Rs. 4,600, for which the sanction of  
To [Government, No. 111, dated 27th Feb.

ruary 1855, applying for sanction of Rs. 4,600 on account of the Ford Wah Canal.

Government has been solicited, may be disbursed from your Treasury at once, and so enable the labourers lately employed on the Ford Wah to return to their homes.

I have the honour to be, &c.

(Signed) JOHN JACOB, Lieutenant Colonel,  
Acting Commissioner in Sind.

*Camp Larkana, Commissioner's Office, 8th March 1856.*

No. 676 OF 1856.

PUBLIC WORKS DEPARTMENT.

True copy forwarded for the information and guidance of Lieutenant Ford, Deputy Collector of Larkana.

(Signed) JOHN JACOB, Lieutenant Colonel,  
Acting Commissioner in Sind.

*Camp Larkana, Commissioner's Office, 8th March 1856.*

No. 111 OF 1856.

PUBLIC WORKS DEPARTMENT.

From the ACTING COMMISSIONER IN SIND,

To the Right Honorable LORD ELPHINSTONE, G.C.H.,  
Governor and President in Council, Bombay.

MY LORD,—I have the honour to solicit sanction to an outlay of Rs. 4,600, under the following circumstances. Rather more than a year ago, the Zemindars cultivating in the neighbourhood of the Gharr Canal, in the Larkana Districts, proposed to connect this stream with the Narra by a new cut, which they agreed to dig at their own cost, provided Government would consent to subsist the labourers during the period they might be employed on the work.

2. The Collector recommended this outlay on the part of Government, and included in his annual canal clearance estimate a sum of Rs. 4,400 on such account. The Commissioner, in consultation with

the Superintending Engineer, agreed that the work was both important and emergent, and accordingly it was proceeded with, and completed in the spring of last year.

3. As the work progressed, it was discovered that an under estimate had been formed of the number of labourers required for the cutting, and of the rates at which these labourers could be subsisted. A revised estimate was therefore submitted to the Commissioner, soliciting an additional sanction for Rs. 4,600, as the work in the interim had been nearly completed, and any interruption would have very injurious results. This further outlay was provisionally sanctioned, and the district officers were directed to forward a summary of the results that might be anticipated from the cutting, in view to the same being laid before Government. This call was responded to ; but the information supplied was by some oversight allowed to lie over until the inundation had set in.

4. Mr. Frere therefore considered it advisable to call upon the Deputy Collector of Larkana for a statement of the benefits which *actually* accrued consequent upon the cutting during the past season, and the statement supplied is highly satisfactory. It shows that the work has tended to relieve the Narra of those floods which formerly proved so injurious to the districts and revenue of Mehur, and it has afforded a direct and cheap channel for traffic between the villages on the Narra and Larkana; that 4,500 beegas on the banks of the cutting itself have been given in lease; and that a rise of nearly two feet of water was created in the Gharr, causing an increase in the one year's revenue of about Rs. 80,000, or nearly nine-fold the total amount which the work will cost Government.

5. The length of the cutting is 5½ miles. Its average depth is 10 feet, with a breadth at bottom of 30 feet. It is estimated that the proportion of the cost borne by the Zemindars amounts to Rs. 19,560, and I trust that Government will deem fit to accord an early sanction to the outlay of Rs. 4,600 expended under provisional sanction.

6. In conclusion, your Lordship in Council will, I hope, concur with me in thinking that the projection and execution of this very remunerative public work reflects the highest credit upon Lieutenant Ford, the Deputy Collector of Larkana.

I have the honour to be, &c.

(Signed) JOHN JACOB, Lieutenant Colonel,

Commr.'s Office, 27th February 1856.

Actg. Commr. in Sind.

No. 714 of 1856.

PUBLIC WORKS DEPARTMENT.

To the ACTING COMMISSIONER IN SIND.

The CHIEF ENGINEER OF PUBLIC WORKS.

*Bombay Castle, 28th March 1856.*

Letter from the Acting Commissioner in Sind, No. 111, dated the 27th February 1856, soliciting sanction to an outlay of Rs. 4,600, expended in cutting a new canal from the Gharr to the Narra.

*Resolution of Government on the above, dated the 21st March 1856.  
(Extract Paragraphs 1 and 2.)*

1. Sanctioned, as an emergency of 1855-56.
2. Government are gratified that they can concur, from the data before them, in Lieutenant Colonel Jacob's encomium on Lieutenant Ford's sagacity in projecting this work, though the data are not sufficient to explain the cause of the deficiency in the original estimate.

No. 941 of 1856.

PUBLIC WORKS DEPARTMENT.

True extract forwarded for the information and guidance of the Collector of Shikarpoor, and for communication to Lieutenant Ford, in reference to the Collector's letter No. 24, of the 10th January last.

(Signed) JOHN JACOB, Lieutenant Colonel,  
Acting Commissioner in Sind.

*Commissioner's Office, Camp Peer Putta, 8th April 1856*

No. 456 of 1856.

PUBLIC WORKS DEPARTMENT.

True copy forwarded to Lieutenant Ford, for his information and guidance, with reference to his report No. 24, of the 10th January last.

(Signed) T. R. STEWART, Major,  
Collector, Upper Sind.

*Shikarpoor Collector's Office, 11th April 1856.*

*Extract of a Report from the Superintending Engineer in Sind,  
No. 710, dated 12th April 1856.*

Though I had very little to do with the undertaking, I consider it right to mention my firm belief, that but for the Ford Wah connecting the Narra with the Gharr, the revenue of the Larkanah Deputy Collectorate, which was in excess of that of the previous year, would, in a great measure, have been lost. Lieutenant Ford was not only the projector of that valuable work, but it was owing entirely to his great personal influence with the Zemindars that the work was completed in one season.

---

No. 1037 of 1856.

PUBLIC WORKS DEPARTMENT.

True extract forwarded to the Collector of Shikarpoor, for communication to Lieutenant Ford.

(Signed) JOHN JACOB, Lieutenant Colonel,  
Acting Commissioner in Sind.

*Camp Gharra, Commissioner's Office, 18th April 1856.*

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## APPENDIX A.

*Statement showing the Length, Dimensions, Cost, &c. of the New Cutting between the Narra and Gharr, as called for in Commissioner's Letter No. 820 of 1855, in Revenue Department, dated 9th March 1855.*

| Nature of Work.  | Dimensions of Canal. |                |                    | No. of Cubic Feet of Excavation. | Rate per Rupee. | Total Cost, including Pay to Darogahs,* Moonshees, &c. | To be borne by Zemindars. | To be borne by Government. | Remarks. |
|--|----------------------|----------------|--------------------|----------------------------------|-----------------|--|---------------------------|----------------------------|----------|
|  | Length.              | Average Depth. | Breadth at Bottom. | Side Slopes.                     |                 |  |                           |                            |          |
| Canal from the Narra to the 5 miles and 10 feet. 30 feet. Gharr. | 1,760 feet.          |                |                    | 1 in 1                           | 400             | 28,560   | 19,560                    | 9,000                      |          |

\* Pay to Darogahs, &c. amounts to some Rs. 400.

(Signed) St. CLAIR FORD, Lieutenant,  
Deputy Collector.

*Larkana, Deputy Collector's Office, 29th March 1855.*

NOTE.—The actual revenue to Government realised in 1855-56, and solely due to the Ford Wah, is reported in a memorandum from the Acting Commissioner of Sind, dated 4th September 1856, to have amounted to Rs. 80,000.

**SELECTIONS FROM THE RECORDS OF THE BOMBAY  
GOVERNMENT.**

No. XXXVIII.—NEW SERIES.

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**CORRESPONDENCE**

RELATING TO THE

**TENURE OF THE POSSESSIONS IN THE DECCAN**

HELD BY

**HIS HIGHNESS JYAJEE RAO SINDIA**

UNDER THE

*Treaty of Surje Anjungaum.*

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**Bombay:**

**PRINTED FOR GOVERNMENT**

**AT THE**

**BOMBAY EDUCATION SOCIETY'S PRESS.**

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**1856.**



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## SINDIA'S DECCAN HOLDINGS.

No. 1432.

From W. HART, Esq.,

Inam Commissioner,

To H. E. GOLDSMID, Esq.,

Secretary to Government, Bombay.

*Dated Khandulla, 11th December 1852.*

SIR,—With reference to your letters Nos. 6827 and 7287, dated respectively the 1st and 15th July 1851, I have the honour of submitting a carefully prepared report dated 23rd November 1852, drawn up by my Assistant Lieutenant A. T. Etheridge, on the claims of His Highness Sindia to estates of various descriptions south of the Ajunta Range.

2. The estates held and claimed by Sindia consist of Mahals, villages, lands, and Umuls. The first 46 paragraphs (each paragraph comprises one subject, and is, when necessary, subdivided into sections) of Lieutenant Etheridge's report contain a history of the transactions which have taken place with regard to the above estates since A. D. 1817-18, drawn up chiefly with a view of elucidating the merits of His Highness' claims for the restitution of such of those as have already been resumed from him; the 47th paragraph briefly suggesting a classification of the whole of his present possessions.

3. As I am now about to suggest to Government the issue of some general instructions under which the whole of Sindia's claims in the Deccan may be fairly adjudicated, I would respectfully recommend that the decision now declared regarding the particular cases and claims described in the 46th paragraph of Lieutenant Etheridge's report should not be final, but should merely point out the arrangement to be upheld pending final adjudication. The *ad interim* orders thus given should, I think, be as follows:—

1st.—That with respect to the first of Sindia's claims for restitution, enumerated in Section I. of paragraph 46 of Lieutenant Etheridge's report, Moujé Khandgaum, of Purguna Sewgaum, treated of at length in paragraph 41, shall remain under attachment.

2nd.—That the village of Khokur Muhoo, included as the second item of the same claim, treated of at length in Sections I. to VII. of Lieutenant

Etheridge's 42nd paragraph, shall remain in attachment until some legal representative of Munsoor Saheb shall establish a right to it, either under Article VII. of the Treaty of Surjé Anjungaum, or under the Bombay Government letter No. 1616 dated 31st August 1829, or otherwise.

3rd.—That the village or hamlet of Esapoor, included as the third item of the same claim, and treated of at length in Lieutenant Etheridge's 43rd paragraph, be given up to Sindia pending final decision. The report shows that His Highness has a good *primâ facie* title to this village.

4th.—That the present arrangement regarding the Umuls of the Government half of Sewgaum and of Purguna Deypoor, entered as the second claim in Section I. of Lieutenant Etheridge's 46th paragraph, and treated of at length in paragraph 44, be upheld.

5th.—That the Inam land claimed in six villages of Parnair, as stated under the third claim in the same paragraph, and treated of at length in paragraph 45, be continued to the extent of the original Sunud, viz. 5 chahours and 3½ beegas.

6th.—That with regard to the two additional items enumerated at the close of Section I. of Lieutenant Etheridge's 46th paragraph (and forming the first and fourth items in paragraph 9 of his report), nothing not now in Sindia's possession shall be given up to him.\* This will preclude any assent to the claim to the Umuls of seven villages, explained in Sections II. and III. of the 46th paragraph.

4. Having thus suggested what seems to me the fairest course for treating His Highness Sindia's claims for restitution, pending final decision, I come to the consideration of the important question as to what Rules should be declared regarding the final adjudication of his title to all the estates held, as well as claimed by him, in the Deccan.

5. I have observed above that the 47th paragraph of Lieutenant Etheridge's report suggests a classification of the whole of Sindia's present possessions; and it is evident that the same will apply to all he may claim, whether in his possession or not, after the arrangements above proposed by me shall have been carried into effect. I would, therefore, apply it as the groundwork of the final adjudication of *all* Sindia's claims. Lieutenant Etheridge's classification thus extended may be tabulated as follows :—

**ESTATES &c. in the DECCAN held and claimed by SINDIA.**

|  |  |
|--|--|
| CLASS I.—Estates, &c. not specifically reserved by Article VIII. of the Treaty of Surjé Anjungaum. | <p><i>Subdivision 1.</i>—Held authorisedly in A. D. 1803.</p> <p><i>Subdivision 2.</i>—Held, but not authorisedly, in A. D. 1803.</p> <p><i>Subdivision 3.</i>—Not held in A. D. 1803.</p> |
|--|--|

\* On the contrary, it is recommended below, in paragraphs 25 and 26, that he should be obliged to give up all that he now holds of these items.

CLASS II.—Estates, &c. specifically reserved by Article VIII. of the Treaty of Surjé Anjungaum.

*Subdivision 1.*—Estates which fulfil the conditions recited in Article VIII.—viz. those which had descended from generation to generation in Sindia's family as hereditary property.

*Subdivision 2.*—Those which do not fulfil the conditions recited in Article VIII. of the Treaty.

6. From what is stated in paragraphs 1 and 2 of Lieutenant Etheridge's report, it is evident that Sindia can have no right to any estates of Class I. unless to those regarding which it can be conceded that his title to them remained unaffected by the cessions made by him in the Treaty of Surjé Anjungaum.

7. I beg to express my concurrence with Lieutenant Etheridge in the opinion recorded in Section VI. of his 47th paragraph, that it should be conceded that Sindia's title remained unaffected by that Treaty in the case of all petty Inams and Huks authorisedly held by him as a Patel or other Wutundar, or under grant as a private individual.\*

8. If this principle be conceded by Government, it will, with regard to all of his claims for Wutun Inams and private grants of a petty nature coming under *Class I.*, leave him in the condition of any other private Wutundar, and his claim will be recognised as regards estates, &c. which can be referred to the 1st Subdivision of this Class; provided, only, there has been no such interruption of enjoyment since A. D. 1803 as would be fatal in an ordinary claim.

9. But with regard to claims brought under this subdivision, it should be, of course, declared that authorised enjoyment up to the Peshwa's fall in A. D. 1817-18 is as important an element as authorised enjoyment up to A. D. 1803.

10. Claims of an hereditary nature coming under the 2nd and 3rd Subdivisions of Class I. might be admitted in cases where there is proof of grant, or recognition as hereditary property, by any clearly competent authority subsequent to A. D. 1803, but in no other; and it should be distinctly understood that it is *only* in case of those Wutuns and petty Inams, referred to above in paragraph 7, that Sindia's right to any estates of Class I. can be admitted.

11. With regard to Class II., I beg to state that I agree with Lieutenant Etheridge, that there can be no doubt of the propriety of having continued to His late Highness Dowlut Rao Sindia all estates &c. comprised in its 1st Sub-

\* The principle here advocated is, perhaps, more liberal than the Government of India was prepared to admit when paragraph 2 of the letter No. 635 dated 5th August 1852 was addressed by the Secretary to the Government of India with the Governor General to the Government of Bombay, but does not seem precluded by the *amended* translation of Section VIII. of the Treaty of Surjé Anjungaum, given in the Note on paragraph 3 of Lieutenant Etheridge's report.



division. But the question still remains as to the tenure on which they are to be continued to his successor.

12. There seems, also, considerable doubt as to the proper course to follow regarding the possessions included in the 2nd Subdivision of this Class.

13. To remove the doubt last mentioned, and to determine with certainty as to what ought now to be conceded to Sindia as fairly continuable under Article VIII. of the Treaty, I think it necessary to apply for the explicit decision of Government.

14. All the facts and opinions of most importance towards the preparation of such decision appear to be discussed in the correspondence submitted to Government with the Southern Division Revenue Commissioner's letter No. 1729 dated 7th April 1851; and I think it will be observed that, generally speaking, Mr. Turquand's letter No. 78 dated 4th May 1850 is more valuable than either the Revenue Commissioner's or the Ahmednuggur Collector's letters submitted with reference to it.

15. Mr. Turquand points out, in the first place, several instances in which there can be little doubt that Sindia now holds or claims villages and Umuls which do not fulfil the conditions recited in Article VIII. of the Treaty of 1803, as the *grounds* of reservation of the items specified in that Treaty; and, in the second place, he shows that there are good grounds for believing that Sindia is now holding much that is not guaranteed to him *either by the letter or the spirit* of the Article in question, but which, on the contrary, ought to be regarded as given up by Articles IV. and V.

16. It must, however, be borne in mind that Mr. Turquand founds his arguments in a great measure on the use of the word "*Inam*" in the English version of Article VIII.; and, as Lieutenant Etheridge shows in his 3rd paragraph, no such word exists in the Persian original, and there is none such in the Murathee version. We should, therefore, in following Mr. Turquand's arguments, do so as far only as they will agree with the premise that Dowlut-rao Sindia asserted nothing about *Inam* at the negotiation of the Treaty, but that the reservations in Article VIII. were based on his representation that the holdings to be reserved were "certain Talookas and villages which had descended [*i. e.* before A. D. 1803] in the family from generation to generation."

17. Mr. Turquand's admission of holdings, therefore, among the intended reservations ought, I think, to be extended, even in following out his own argument, from *bonâ fide* "*Inams*" to any Talookas and villages in Dowlut-rao Sindia's possession which had authorisedly *descended to him from generation to generation*, and are specified in the Treaty *as reserved*.

18. The Collector of Ahmednuggur (in paragraphs 4 to 6 of his letter No. 1358 of 1850) and the Revenue Commissioner Southern Division (in the 16th paragraph of his letter No. 1729 of the 7th April 1851) both hold that it is now too late to correct *errors* in the Treaty of Surjé Anjungaum, and to this I think every one must agree; but I would submit, with deference, that this concession will not affect Mr. Turquand's arguments, which seem still to be

as strong as before, so far as they affect the questions as to what is included in the reservation of Article VIII. of the Treaty of Surjé Anjungaum, and on what tenure the several items included therein were intended to be continued.

19. To avoid, however, even the *semblance* of straining the meaning of the reservation clause in favour of Government, I would (though agreeing with Mr. Turquand on the question of the real *equity*) go further than he would, even were his arguments extended as suggested in my 17th paragraph, and admit that any possession of Sindia's of which it could be asserted that it was included in the reservations of the Treaty, whether owing to misrepresentation or not, should be regarded as partaking of the guarantee of the Treaty; and I would admit that even if it were shown that the Talookas and villages mentioned as reserved *had not fulfilled* the express condition on which they were reserved,—*i. e.*, had not descended (*uzkudeem poost dur poost*) from of old, generation after generation, in Sindia's family,—still every portion of them that was in his authorised possession in A. D. 1803 ought to be regarded as reserved, *because named* as reserved in the Treaty.

20. I shall now endeavour to explain my reason for thinking that this *entire concession of all that can under any point of view be said to be reserved* by Article VIII. of the Treaty will not now occasion to the British Government any unreasonable loss. In the first place, to prevent it so doing, I am respectfully of opinion that it will be necessary to avoid stretching the provisions of the Treaty in Sindia's favour *with respect to what is not named as reserved*, excepting in the case of the private Inams treated of above in paragraphs 6 to 10, of which it may be supposed that they were not in any way affected by the cessions of the Treaty. In the next place,—and this is the surest safeguard against permanent injustice to our Government,—especial care should be taken that the Treaty should be regarded as having bound Government only to *continue* or *reserve* to Dowlut Rao Sindia the Talookas and villages mentioned in Section VIII., and not to give them up to him on a *new* tenure which did not exist before. The Article recites that Dowlut Rao had represented that he held certain Talookas and villages specified by him, and it was agreed that the Talookas and villages which were named should be *restored* to him; but nothing was said which can be construed to mean that they were to revert to him on a more permanent tenure than that on which they had been previously held. Therefore, *according to the Treaty*, those which were essentially hereditary would remain so, while those which had not previously been held on hereditary tenure would, of course, not become anything more than they had been. Thus, without any straining of the meaning of the clause of reservation, all that was of a really hereditary nature would be continued for ever, and what was not would lapse at Dowlut Rao's death, unless continuable under rules with which the Treaty has no connection,—I mean the Surinjām Rules lately sanctioned by the Honorable Court of Directors.

21. Even Mr. Turquand, who has, apparently, discussed the cession and

reservation clauses of the Treaty with more perspicuity than it seems to me to have been discussed since the death of Dowlut Rao Sindia, when the question of the permanency of guarantee first arose, has, from not having had access to the Persian version of the Treaty, and from not knowing that this, and not the English version, was the original, failed to perceive that there is no guarantee of hereditary permanence expressed, or even implied in Article VIII. There is a recitation that Sindia represented that his family had held certain Talookas and villages from of old, generation after generation, but the *guarantee* goes no further than to give him back the Talookas and villages he managed, or, as this is interpreted by the Supreme Government, so much and so many of them as he was possessed of up to A. D. 1803. Surely, if we give such a wide latitude in Sindia's favour to Article VIII. of the Treaty as to admit that all the possessions specified in it are to be regarded as partaking of the guarantee of the Article, whether or not fulfilling its introductory stipulation, we need not also ascribe to that guarantee a permanence which is not expressed in it, and which is, moreover, incompatible with its terms of "restoring," except in those cases in which it found that the restored property was of an hereditary nature; for, of course, what was of a permanent nature was restored as permanent, and what was previously of a temporary nature, and resumable at Dowlut Rao's death, could only have been restored as so resumable.

22. All hereditary Inams were of an essentially permanent nature, and the giving back of such items of the reservations specified in Article VIII. was equivalent to giving them back with a guarantee of permanency. Surinjams are not of an essentially permanent nature, and the giving back of such among the items specified as reserved was equivalent, at the utmost, to giving them back for the life of Dowlut Rao, the then Surinjamdar. The resumption of such holdings at his death is no infraction of the Treaty, either in letter or spirit.

23. It is for Government to judge whether or not the advantages of the Surinjam Rules sanctioned by the Honorable Court of Directors for Deccan Surinjams should be applied to such of the items specified in Article VIII. as are found to be nothing more than Surinjams; but they certainly appear to me to be continuable under no other, if, indeed, they are under these Rules.

24. What I would beg to suggest with regard to holdings coming within the 2nd Subdivision of Class II., as explained in paragraph 5 of this letter, is, in short, that the reservation or restoration provided by Article VIII. of the Treaty should be regarded as having been rightly applied to them, but that the permanency or otherwise of the tenure of the holdings to which the Article applies should depend on the nature of their tenure before they were so restored, their previous tenure being unaffected by the restoration; and I would recommend that when it is determined which of the items specified in Article VIII. are Inam, and which Surinjam, the former should be adjudicated under the Inam Rules, and the latter under the Surinjam Rules.

25. With regard to the Umuls,—as the Babtee and Surdeshmookee of Sewgaum, Deypoor, Umber, &c.,—I am respectfully of opinion that as these are neither specified\* as reserved, nor fulfil *any* of the conditions which are recited in Article VIII. of the Treaty as the grounds of reservation of those which *are* specified, those which have not been already resumed ought at once to be so.

26. This course would involve the resumption of the Babtee and Surdeshmookee of that half of Sewgaum still in Sindia's possession; and any inconvenience which might be apprehended from the difficulty of our Government determining and collecting these Umuls in districts the Jagheer of which may possibly be continued to Sindia, might be obviated by inducing him to give in exchange whole villages which would yield an income to Government equal, or nearly equal, to the computed amount of Rs. 30,000.

27. The resumption by our Government of the third share of the Surdeshmookee of Umber (described as the fourth item in Lieutenant Etheridge's 9th paragraph) would also appear to be a consequence of the proposed course, unless the Nizam can justly claim it, either under Article VI. of the Treaty of 12th December 1822, or Article VI. of the Partition Treaty of the 28th April 1804,—a question which might be left to future and separate inquiry. It is clear that all of this to which the Nizam has no just right ought now to be in the possession of our Government.

28. I beg to express my concurrence with the Revenue Commissioner's opinion, expressed in paragraph 17 of his letter to Government No. 1729 dated 7th April 1851, that Dowlutrao's adopted son should be regarded in all respects as if his real son.

29. The above paragraphs contain all which it seems necessary to submit to Government, either with reference to Lieutenant Etheridge's report or the correspondence submitted by the Revenue Commissioner, including Mr. Turquand's valuable letter to which I have already alluded.

I have the honour to be, &c.

(Signed) W. HART,

Inam Commissioner.

\* A reference to Lieutenant Etheridge's 16th to 19th paragraphs will show that the term "half of Sewgaum," in the reservation Article, could not possibly have been applied to any portion of the Surdeshmookee Umuls in that Talooka, and was never so considered to apply,—the only recorded reason for permitting Dowlutrao Sindia to hold the Umuls of any part of the Talooka having, apparently, been that urged at the close of paragraph 10 of Mr. Commissioner Chaplin's letter quoted in paragraph 19 of Lieutenant Etheridge's report, to which may, perhaps, be added a reluctance to enforce further resumptions, however indisputable, during the life of Dowlutrao. The former reason (viz. the inconvenience of divided authority) could easily be removed in the mode suggested in my 26th paragraph, and the latter has ceased to exist.

*Report by Lieutenant A. T. ETHERIDGE, Assistant Inam Commissioner, on the Proceedings and Correspondence referred for the Report of the Inam Commissioner with the Government Letters Nos. 6827 and 7287, dated respectively the 1st and 15th July 1851.*

1. By Article IV. of a Treaty concluded between the British Government and His Highness Dowlutao Sindia, at Surjé Anjungaum, on the 30th December 1803, the latter ceded to the former his entire possessions south of the Ajunta Range.

2. By Article V. of the same Treaty the Maharaj renounced, for himself, his heirs, and successors, all claim to any rights and interests appertaining to the aforesaid territory ceded by Article IV.

3. From the above general cessions and abandonment of all right and interest therein, certain reservations, however, were excepted by Article VIII. as follows :—

“ VIII.\* Whereas the Maharaj Dowlutao Sindia has represented that his family have long held in Inam certain lands, villages, &c. in the territories of Rao Pundit Prudhan, viz :—

“ 1. Chamargondey Purguna.

2. Jambgaum (Turuf).

3. Ranjungaum.

4. Half the Purguna of Sewgaum.

“ Situated as follows :—  
Nos. 1, 2, 3, 4, 7, 8, 11, 5. Six villages in the UMBER Purguna.

12, and 14 in the Ahmed-nuggur Collectorate; Nos. 6. Five ditto Pytun do.

9 and 13 in the Poona Collectorate; Nos. 7. Five ditto Newaseh do.

the Nizam's territory; No. 8. Five ditto Kurdey do.

10 in the Sattara district. 9. Six ditto Poona do.

10. Two ditto Wae do.

11. Six ditto Patoda do.

12. Five ditto Pandè Pérgaum do.

13. Five ditto Pabul do.

14. Two ditto Parnair do.

which have been lately taken possession of by the British Government, and their allies; it is agreed that those lands shall be restored, provided that no troops shall ever be introduced into those lands and villages, under any pretence of collecting the revenues, or any other pretence whatever.”

4. It appears, first of all, to have attracted the notice of the British Government in A. D. 1819, that Dowlutao Sindia was holding to the south-

\* The original Treaty was written in the Persian language, and Article VIII. as here transcribed is the English version of it. It is not, however, an exact translation of the Persian. It would be more correct if the sentence “his family have long held in Inam certain lands, villages, &c.” were rendered thus,—“*Certain Talookas, villages, &c. have descended in the family from generation to generation.*”

ward of the Ajunta range considerably more territory than stood reserved to him by Article VIII. of the Treaty above quoted, and was in receipt of certain Babtee and Surdeshmookee Umuls, and other items of revenue, the complete abandonment of which Article V. stipulated.

A despatch quoted by Mr. Willoughby in paragraph 3 of his Minute.

5. The Government of India accordingly directed that all lands and Huks so held, to which Sindia's right appeared doubtful, should be at once resumed.

A despatch quoted by Mr. Willoughby in paragraph 4 of his Minute.

6. From the great difficulty experienced, however, in procuring a specification of the nature and extent of these unauthorised possessions, the above measure of the Supreme Government was unavoidably placed in abeyance.

Deccan Commissioner's letter to Government dated 12th September 1820.

7. At length, however, on the 20th February 1820, the Gwalior Durbar prepared and transmitted through the Resident a list of claims according to their own interpretation of Article VIII., under three headings, as follows :—

*First Head.*—"The city of Mahadoo Wilas Tanna, commonly called Jambgaum, and other detached villages of sundry (other) Talukas (containing 108 villages)."

*Second Head.*—"Villages of Purguna Shreegondey (Chamargondey), and sundry other Mahals."

*Third Head.*—"Three and a half detached villages held in Jagheer by Trimbuk Baboorao."

8. The arguments which, from the indefinite wording of Article VIII., sprung into existence, on a comparison being instituted between the reservations therein recorded and the claims set forth by the Gwalior Durbar in the new list, were as follows :—

1. The extent of Purguna Chamargondey.
2. Ditto ditto Jambgaum.
3. Ditto ditto Ranjungaum.
4. Ditto of half the Purguna of Sewgaum.

9. The following four large items of revenue, also, though evidently ceded by Article V. of the Treaty, and not specifically reserved by Article VIII., were still in the enjoyment of Sindia\* :—

I.—Babtee and Surdeshmookee of half the Purguna of Sewgaum (the Jagheer of which was confirmed to him by the Treaty), amounting to Rs. 30,000.

II.—The Babtee and Surdeshmookee of the other half of the Purguna of Sewgaum (which formerly belonged to Holkar, and was ceded by him to the British Government), amounting to Rs. 23,071.

\* Shown at foot of list No. 2 attached to Deccan Commissioner's letter to Government of 12th September 1820; the list alluded to being a specification of Sindia's unreserved holdings.

III.—The Babtee and Surdeshmookee of the entire Purguna of Deypoor, amounting to Rs. 19,741.

IV.—One-third of the Surdeshmookee of the entire Purguna of Umber, amounting to Rs. 20,313-10-0, paid to Sindia by the Nizam, according to stipulation made at the time the British Government ceded the Purguna to that prince.

10. With a view to the settlement of the various points at issue described in the two preceding paragraphs, a long but inconclusive correspondence ensued between the Supreme and Bombay Governments, the Resident at Gwalior, and the Sole Commissioner in the Deccan. It fortunately happened, however, about this time, that three original papers were discovered in the Poona Duffur (Deccan Commissioner's letter to Government of 12th September 1820) in the handwriting of Bhow Surunjamee, one of the late Peshwa's principal Duffurdars, which very materially served to remove the doubts existing, and define the nature and extent of the reservations which the British Government really intended to make in favour of Sindia, so vaguely recorded in Article VIII. and so irreconcilable with the new list furnished by the Durbar.

11. The following comparison of these original documents with the new list and Article VIII. of the Treaty may tend still further to elucidate the matter:—

| Districts,                       | By Article VIII. | New List. | Bhow Surunjamee. | Remarks.   |
|----------------------------------|------------------|-----------|------------------|--|
| <i>Ahmednuggur Collectorate.</i> |                  |           |                  |  |
| Chamargondey Purguna . . . .     | ..               | 12        | 11               | This is merely a nominal difference. Sindia never had more than eleven villages in the district, but added one himself, viz. Rohee Gowan, by forming a new village from the lands of several adjoining villages.   |
| Jambgaum (Turuf) . . . . .       | ..               | ..        | 1                | Sindia claims under Jambgaum the whole of the villages in the first head of the new list, to the number of one hundred and eight, including fourteen in Khandeish. All the rest of the villages in this memorandum are entered in regular order, according to the Treaty, under the second head of the new list. (Deccan Commissioner's letter to Government of 12th September 1820. List No. 1 attached.) |
| Ranjungaum . . . . .             | ..               | 13        | 13               | These are all that Sindia ever had in this district.   |
| Half of Purguna Sewgaum. .       | ..               | 88        | 86½              | Sindia claims two villages more than the Duffur accounts show, one of  |

| Districts.                 | By Article VIII. | New List. | Blow Sub-injance. | Remarks.  |
|----------------------------|------------------|-----------|-------------------|---|
|                            |                  |           |                   | which, viz. Kourgaum, had been in the Peshwa's hands for the last thirty years, but has been given up to Sindia by mistake. The other, Teesgaum, is not in the Sunuds and Duftur accounts, but Sindia has held the whole of it since 1798. Sindia has omitted one-half village of Bhendy. |
| Newaseh Purguna .....      | 5                | 5         | 5                 |   |
| Kurdey Purguna .....       | 5                | 5         | 5                 |   |
| Patoda Purguna .....       | 6                | 2         | 2                 | The excess is a mistake in the Treaty; Sindia has only two villages altogether, under whatever tenure, in the district.   |
| Pandè Pérgaum .....        | 5                | 5         | 5                 |   |
| Parnair .....              | 2                | 2         | 2                 |   |
| <i>Poona Collectorate.</i> |                  |           |                   |   |
| Prants Patus and Sandus .. | 6                | 7         | 7                 | The English copy has six, the Mura- three seven. They belong to the Prant Poona, but to the Turufs of Patus and Sandus, as explained in the new list, and also in the Duftur account. (Deccan Commissioner's letter to Government of 12th September 1820. List No. 1 attached.)           |
| Pabul Purguna .....        | 5                | 3         | 3                 | The Duftur accounts agree with the new list. Sindia has only three in this district altogether.   |
| <i>Nizam's Territory.</i>  |                  |           |                   |   |
| Umber Purguna .....        | 6                | 5         | 5                 | The excess of one in the Treaty is probably a mistake, as it is not in the new list.  |
| Pytun .....                | 5                | 5         | 5                 |   |
| <i>Sattara Districts.</i>  |                  |           |                   |   |
| Wace Purguna .....         | 2                | 2         | 1                 | The second village claimed, viz. Turrow- lee, had belonged to the Peshwa for many years before the Treaty.  |
| Total ..                   | ..               | 154       | 151½              |   |

12. Referring to Sindia's new list of claims, enumerated in paragraph 7 and contrasted in paragraph 11 with the documentary evidence forthcoming from the Poona Duftur, it will be observed that under the first head are claimed one hundred and eight villages, the first of which is that of "Jambgaum,"



under the Purgana to which it belongs, viz. Parnair, and this is the only village in the whole, under this head, which corresponds with the reservations made in Article VIII. of the Treaty; whereas, with this single exception the whole of the villages in the second head correspond exactly, not only in order, number, and description, with Article VIII., but in amount and in name with Bhow Surinjamee's list. So remarkable a correspondence between these three documents satisfied the Sole Commissioner in the Deccan of the identity of the whole of the reservations of Article VIII. In two or three instances there are trifling discrepancies between the Article of the Treaty and Sindia's new list, but in all such cases the accuracy of the latter has been verified by Bhow Surinjamee's list and the Duftur accounts with which it agrees.

13. In the cases of Chamargondey and Ranjungaum, the British Government conceded, after much correspondence, that the Purganas, and not merely the villages, were intended to be exempted by Article VIII., though, as it was by no means their intention to bestow upon Sindia any new territory in actual enjoyment of which he was not, the extent of the reservations in those Purganas was strictly held to be those portions thereof respectively in *bonâ fide* possession of which he was at the date of the Treaty. And although I cannot discover the decision of Government in regard to the extent of "half the Purgana of Sewgaum" \* so conclusively and emphatically recorded, as above, yet the obvious inference from the correspondence on the subject is that the British Government intended to reserve to Dowlut Rao Sindia in the Treaty of 1803 *those villages only* of the "original grant" which had descended in the family uninterruptedly, and were actually in its possession at the date of the conclusion of the Treaty of Surjê Anjungaum.

14. The only material difficulty, therefore, was in the case of "Jambgaum," Sindia claiming under that head one hundred and eight villages, whereas, Government were only willing to admit the reservation of the village of Jambgaum itself, so that a difference of opinion existed to the extent of no less than one hundred and seven villages, between the Durbar and Government.

15. A considerable correspondence ensued on this point, but the arguments adduced by Mr. Chaplin, the Sole Commissioner in the Deccan, were of so strong and incontrovertible a nature in favour of "Jambgaum" *being but a village*,—borne out, too, so clearly by the Peshwa's records found in the handwriting of Bhow Surinjamee,—that Government considered the evidence full and conclusive, and Sindia's claim to anything beyond the village was nega-

\* The "original grant" was called "half the Purgana of Sewgaum," possibly because the other half was conferred upon Holkar at the same time; but a specification of the villages composing Sindia's half is forthcoming: they are 86 (1) in number, and were conferred in Surinjam upon Jyaje Sindia, under a Sanud dated A. D. 1752-53.

tived accordingly.\* The main fact which forced itself upon the notice of Government, and was held to be fatal to Sindia's pretensions to Jambgaum as a Turuf, was that the alleged Turuf not only comprehended *all* the other villages *separately enumerated* in the reservations of Article VIII. (the mention of which would have been quite superfluous had this extended sense been admitted), but it would have reserved to Sindia *the whole of the cessions of Article IV.*, and would, further, have purported to reserve to him some fourteen villages *in Khandeish north of the Ajunta*, which never came into question, and which, never having been ceded, could not obviously require to be so reserved.

16. With reference to the various Umuls, then, in the possession of Sindia, General correspondence. as detailed in paragraph 9, it was argued by Mr. Chaplin, and the Collectors who succeeded him in Poona and Ahmednuggur, that those items of revenue not being specifically reserved by Article VIII. of the Treaty, after having been formally renounced by Article V., could only be held by Sindia on sufferance, and that neither in reason nor in justice could he found a claim to them. Indeed, the reservations of Article VIII. appear only to have been admitted at all by the British Government on a liberal consideration of the strong representations urged by Sindia that they were ancient and hereditary possessions, "*descended in the family from generation to generation,*" and on which plea alone were they conceded. It would be absurd, therefore, to class these items, under such a denomination,—more especially the two former,—as the Babtee and Surdeshmookee of the entire Purguna of Sewgaum were first granted to Sindia by Bajceerao in military Surinjam under a Sunud dated A. D. 1797-98 (*only six years before the war*) in part of a Jagheer of ten lakhs of rupees conferred by the latter upon the former on his establishing him in the Peshwaship. Duftur records.

17. • It must also be borne in mind, that the Jagheer Umuls of the entire Purguna of Sewgaum were divided equally by the Peshwa between Sindia and Holkar, under Sunuds dated A. D. 1752-53; and that on Holkar ceding his half to the British Government, the latter became the sovereign power in *that half* from the circumstance of possessing the Jagheer Umul.

18. Mr. Chaplin further observes, on the subject of these Umuls (letter to Government of 12th September 1820), that his doubts are confirmed from two of Bhow Surinjamee's memoranda, which contain the amount of all the reservations, and have the words "half the Jagheer of the Purguna of Sewgaum, Rs. 66,812-14," thereby excluding the Babtee and Surdeshmookee, which amount to Rs. 30,000 more.

19. It was, however, finally suggested by the Commissioner, that the three last items specified in paragraph 9 should be resumed as unauthorisedly held in

\* This decision was conveyed to the Gwalior Resident in a despatch from the Supreme Government dated 14th March 1823, copy of which was transmitted the same day for the information of the Government of Bombay.

excess of Article VIII. ; but doubts were expressed as to the expediency of resuming the first (although clearly the undoubted right of the British Government for the same reason), inasmuch as it was remarked (letter to Government of 12th September 1820) that the Jagheer share in *his half* of the Purguna of Sewgaum, to which Sindia in any event was entitled, gave *him* the paramount right of sovereignty over the villages composing that half; and, therefore, Mr. Chaplin stated his intention of submitting to Government the propriety of our waiving our right thereto, but resuming at once the Babtee and Surdeshmookkee of our own half, by which means each Government would have the undivided possession and authority of one-half of the villages of the entire Purguna respectively (Deccan Commissioner's letter to Gwalior Resident dated 30th December 1821). Mr. Chaplin submitted the point accordingly for the consideration of Government in the following words :—

“ 10. In respect to the question regarding the Babtee and Surdeshmookkee of Sewgaum, I have the honour to inform you  
 Letter to Government No. 87 of 20th July 1822. that after every inquiry here, and repeated references to Gwalior, I am unable to discover the slightest grounds for altering my former opinion on this subject, as expressed in my letter to you of the 12th September 1820, and in the enclosures of my despatches of the 22nd June and 12th October 1821. I beg leave, therefore, to renew the recommendation conveyed in my letter to Captain Stewart of the 30th December 1820, No. 213, and to repeat that, although I conceive Sindia to be entitled only to the Jagheer share of half the Purguna of Sewgaum, and not to the Babtee or Surdeshmookkee of any portion of it, yet we ought to relinquish our right to those shares of the villages of which the Jagheer belongs to him, and content ourselves with resuming the Babtee and Surdeshmookkee of that portion of the district of which the Jagheer was ceded to us by Holkar. By this concession the most liberal acceptation of the terms of the Treaty of Surjé Anjungaum will be preserved, and the excessive inconvenience of two conflicting authorities in the same village will be exchanged for the minor evil of the partition of the district into whole villages between Sindia and us.”

20. In reference to paragraph 8, regarding the extent and nature of certain alleged reservations, and the decision of Government recorded thereon in paragraphs 13 and 15, it will appear from the documentary evidence contrasted in paragraph 11, that Sindia under Article VIII. could only establish his claim to 151½ villages.\*

21. The total number of villages held by Sindia south of the Ajunta Range, ceded by Article IV. of the Treaty, amounted to 241,† and thus, there-

\* List No. 3, attached to the Deccan Commissioner's letter to Government of 12th September 1820, specifically mentions 65 of these reserved villages ; the 86½ in Sewgaum are lumped, for the reason given by Mr. Chaplin.

† List No. 2, attached to the above letter, specifically mentions these villages and Umuls.

fore, Sindia held in villages alone no less than  $89\frac{1}{2}$  in excess of Article VIII., and Umuls as enumerated in paragraph 9 renounced by Article V.

22. In regard to the perfect right of the British Government to dispossess Sindia of his holdings in excess of the reservations, it must be borne in mind that by the subsequent Partition Treaty that portion of the general cessions of 1803 which lay in the Peshwa's territory was allotted to that prince (despatch from the Bombay to the Supreme Government, No. 1238 of 14th August 1820), who, therefore, became entitled to resume them at his pleasure. From motives of consideration or policy, however, the Peshwa permitted Sindia to continue in possession, acknowledging the supremacy of the Peshwa's Government; but when the Peshwa's territory fell into the hands of the British, the latter obviously acquired the same right to the sovereignty that the Peshwa originally possessed; and, consequently, the right to dispossess Sindia, whenever they thought fit, lapsed to the British Government.

23. From motives of forbearance and delicacy, however, not of justice, the Government of India intimated their desire (despatch of 2nd May 1823) to continue the *life interest* of these unauthorised possessions to Dowluttrao Sindia notwithstanding its clear and undoubted right to them by conquest and Treaty.

24. Dowluttrao Sindia died on 21st March 1827, when a correspondence ensued, having for its object the surrender, by the Gwalior Durbar, of the unauthorised possessions aforesaid.

25. Chor Chittees for the surrender of the  $89\frac{1}{2}$  villages were transmitted accordingly by the Durbar through the Resident, thus specified:—

64 $\frac{1}{2}$  descended from His Highness's ancestors.

23 since given by the late Peshwa to His Highness for the payment of his troops. (Gwalior Resident's letter to the Bombay Government of 10th October 1828.)

1 (Oorlee) given in Inam for the expenses of the great Maharaj's Chutree.

1 (Wurgaum, near Sindolee, Purguna Kurdey) descended to His Highness from his ancestors.

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89 $\frac{1}{2}$

26. The above Chor Chittees corresponded, it was remarked by the Gwalior Resident, with the list (No. 2, attached to Mr. Chaplin's letter of 12th September 1820) originally prepared by the Deccan Commissioner, but contained at foot a variety of petty reservations and Huks, against which the Resident stated he had protested (Gwalior Resident's letter to the Bombay Government of 10th October 1828) as quite inadmissible. The Collectors in the Deccan, in carrying into effect the orders of Government that they should lose no time in receiving charge of the  $89\frac{1}{2}$  villages, respected not these petty reservations, and the resumption of them was approved by Government, as

being in strict accordance with Article V. of the Treaty. (Government letter to the Collector dated 31st August 1829.)

27. On the resumption in November 1828 of the aforesaid 89½ villages in the several districts and Collectorates, it was discovered that a very considerable number of them had in reality been alienated by Sindia, both prior and subsequent to the Treaty; but on a reference to Government, the question was thus disposed of (Government letter to the Collector dated 31st August 1829):—

1st.—All alienations made previous to the date of the Treaty (30th December 1803) should be respected.

2nd.—All alienations made subsequent thereto should be resumed, unless Government saw fit to continue them in special cases.

3rd.—All alienations of a purely religious nature, whether made before or after the Treaty, should be continued so long as the shrines existed for the support of which they were bestowed.

28. It would appear, however, that the question of the Babtees and Surdeshmookees, &c. already alluded to in paragraph 9, held by Sindia in the districts of Sewgaum, Deypoor, and Umber, which, being large items of revenue renounced by Article V. and unreserved by Article VIII., formed portion of his unauthorised holdings, had not at this time been brought fully under discussion, and, consequently, no definitive arrangements had been made in regard to them. The suggestion of Mr. Chaplin, recorded in paragraph 19, of the inexpediency of resuming the Babtees, &c. of that half of the Purguna of Sewgaum the Jagheer of which Sindia held from the Peshwa, and which was confirmed by Article VIII., had apparently been partially instrumental in causing this indecision; and the Gwalior Resident, in his anxiety to procure as soon as possible from the Durbar the Chor Chittees for the 89½ villages, having purposely “abstained from making any mention of them to the Durbar, that they might form no pretence for delay in the delivery of the villages” (Gwalior Resident’s letter to Supreme Government of 10th October 1828), the resumption of these Babtees and Surdeshmookees was at this period entirely overlooked.

29. A long correspondence, extending over several years, appears to have existed about this time on the subject of the beneficial results to be expected from mutual exchanges of territory between the Government and the Durbar, whereby the interests and authority of both would become more consolidated. The Supreme Government, however, finally negatived these suggestions, by declaring that the Court of Directors had expressed their opinion that the evils of a divided jurisdiction—which could, it was observed (despatch of 28th January 1835), be resumed from both Sindia and Holkar, whenever the public interests called for that step, inasmuch as they rightly held no jurisdiction in their Deccan villages but what had been tacitly accorded to them by the forbearance of the supreme authority—were preferable to any such extreme measure as making over British subjects to Native rule.

30. In accordance with the instructions alluded to in paragraph 27, certain alienated villages, which had been resumed under the Treaty, were restored to their present holders as an act of pure liberality on the part of the British Government.

31. Under a misconception, however, of the liberal spirit in which these restorations were made by the British Government, the Durbar requested permission in 1837 to endeavour to establish, through the medium of the British courts of law, their supposed right to the entire 89½ villages, as Inamdars and Jagheerdars, by proofs of the terms on which they held them from the Peshwa, and of those on which they now consider themselves to hold them from us, as the conquerors of the Peshwa's possessions. This misapprehension was evidently participated in by the Resident himself, who, in urging the suit of the Durbar, stated (letter to Bombay Government dated 3rd May 1837) that "of the 89½ villages, those also which were alienated by Sindia were attached by us, but the individuals to whom they were granted by Sindia having *proved their claims*, the villages have been restored to them."

32. It was evident, therefore, that the act of liberality exercised by the British Government in the above case had been entirely misunderstood, both by the Resident and the Durbar; but the Bombay Government, in again urging upon the Supreme Government the necessity of deciding the long agitated question of Sindia's claims in reference only to the terms of the Treaty, remarked (despatch of 23th July 1840) that it was probably the erroneous impression it had apparently formed (that the individual alienations had been restored *by process of law*) which had led the Durbar to wish to prosecute its claims to the restitution of the remaining villages on similar grounds. At the same time, the Bombay Government pointed out that claims to Inams were excluded from the British courts of law, under Section V. Regulation XXIX. of 1827, Government reserving to itself the authority to decide upon claims of this nature, independently of the jurisdiction of such courts.

33. In reply to the above communication from the Bombay Government, the Governor General in Council stated (despatch of 26th July 1841) that—

"He felt satisfied that Sindia's claim to recover that portion of these villages which remains attached, and has not been released in favour of the under free tenants, is entirely unfounded. These villages were among the possessions of Dowlut Rao Sindia, which he ceded to the British Government by the Treaty of Surjé Anjungaum. He was allowed to retain them during his lifetime; they were resumed at his death. It was then ascertained that several had been alienated both before and after the Treaty: those alienated before the Treaty were relinquished in favour of their then possessors; and such as had been alienated for charitable and religious purposes after the Treaty were also relinquished, and the remainder were considered a lapse to the British Government. It would appear that the consideration evinced by the British Government to the grants of the Sindia family in upholding

the alienations of a considerable portion of those villages, *which it might have cancelled*, has led to a misconception at the Court of Gwalior of the grounds and motives of these concessions, and to a belief that it could substantiate its own claims to recover possession because the claims of certain parties who held under Sindia's grants had been admitted. But there is no ground whatever for such assumption ; and as no possible benefit could be derived from allowing Sindia's agent to agitate his claims to recover these villages before the fiscal and judicial authorities in the Deccan, the Resident at Gwalior will be instructed to explain to His Highness the whole particulars of the case as exhibited in those papers, when, no doubt, he will desist from the further prosecution of his claims for the restoration of the villages."

34. The above opinion of the Supreme Government may, therefore, it is presumed, be considered final and conclusive in so far as Sindia's claim to the 89½ villages resumed from the Durbar in 1828, as in excess of the reservations of Article VIII., is concerned ; and the following expression of the sentiments of the Governor General in Council, recorded below, on the subject of the Umuls in Sewgaum, Deypoor, and Umber, already adverted to, may be held as no less decisively rejecting the claims set up by the Durbar to them.

35. The Bombay Government, in bringing the Umuls adverted to again under discussion, and prominently directing the attention of the Supreme Government to the subject, stated (despatch of 20th June 1842) as follows :—

" But the principal point to which he (the Governor in Council) would direct the attention of His Honour in Council is the various Umuls, Babtees, Surdeshmookees, &c. which Sindia still holds over many districts of the Ahmednuggur Collectorate. This subject seems never before to have been brought fully under discussion. The words of the Treaty are, I am directed to submit, very clearly in favour of the right of the British Government to resume these Umuls, Articles III. IV. and V. clearly containing an abandonment by Sindia of all his possessions in the Deccan, with the exception of those enumerated in Article VIII.; the only doubt which occurs to His Honour in Council arises from the tacit acquiescence by the Peshwa and the British Government, up to the present time, in Sindia's right of enjoyment. This, however, was not considered a sufficiently valid plea on the former occasion, when the resumption of the 89½ villages to which Sindia's title was defective was ordered on Dowlutrao's death, nor does it seem sufficient in the present instance."

36. In reply to the above opinion of the Bombay Government, the Governor General in Council stated (despatch of 5th August 1842) that—

" He entertains no doubt that, under the Treaty of Surjé Anjungaum, Sindia has no interest whatever in any lands to the southward of the Ajunta Hills which are not mentioned in Article VIII. of that Treaty."

37. As it was evident from the above reply that the Supreme Government

attached no material importance to the only doubt suggested by the Government of Bombay,—viz. “that arising from the tacit acquiescence by the Peshwa and the British Government up to the present time in Sindia’s right of enjoyment,”—the Durbar were called upon to make a final surrender of the remainder of those possessions, which, although in excess of Article VIII., were inadvertently omitted in the general resumptions of 1828. Chor Chittees were accordingly transmitted by the Durbar, through the Resident.

38. *Section I.*—It does not appear, however, on the face of the correspondence under review, what the actual demands of the British Government were on this occasion; but allusion is thus made to them by Sir R. Shakespear in forwarding the Chor Chittees corresponding thereto (letter to Colonel Sleeman, No. 477 of 23rd September 1845):—

\* Evidently these,—

1. Esapoor, a hamlet of Waloobj, in Pandè Pergaum Purguna.
2. Khokur Muhoo, in Purguna Manore.
3. Khodurgong (evidently Khandgaum), in Purguna Sewgaum.

“The list sent from Bombay consists of—1st, three villages\*; 2nd, claims for Babtee and Surdeshmookee, &c. on several villages; 3rd, Inamee lands in six villages.”

*Section II. of para. 38.*—In forwarding the Chor Chittees (as stated in the paragraph preceding), Sir R. Shakespear observed (letter to Colonel Sleeman, No. 477 of 23rd September 1845),—

“The Durbar has given orders for the transfer of every item entered in the list, though in their note they state that Esapoor is already in the possession of the English; that Khokur Muhoo does not belong to them. This village is entered in the list as being in Turuf Munore, and the Durbar states that there is another village in that Illaka which is a Jagheer held by Shah Munsoor Saheb, and of which the Nizam is entitled to one-fourth share. The third and last village is Khodurgong, which in the list is entered as being in Turuf Sewgaum. The Durbar states there are two villages called Khureegong in that Illaka, but that both of these are entered in Article VIII. of the Treaty. There is also another village in Illaka Kurce called Kohreegong. It is evident there must be some mistake in the English spelling of the names of these three villages, and it will be necessary to have them sent in the Murathee character. With reference to the claims for Babtee, &c. the Durbar remarks that seven of the villages entered in the list as being in Turuf Sewgaum were formerly exchanged with the British

Compare with Sections 2 and 3 of paragraph 46.

Government for a village called Samp, which was given to Mama Saheb Krishnrao Kudduni, and that the claims on account of Babtee, &c. for these seven villages ought to remain with Sindia.”

Sir R. Shakespear also adds,—

“The Sirdars having thus complied with our demand, I feel confident that Government will be disposed to listen attentively to the arguments which



they may urge to prove that any of the lands or claims now given up belong to them by Article VIII. of the Treaty of Surjé Anjungaum."

39. In reference to paragraph 9 of the above letter from Sir R. Shakespear,

Mr. Spooner's letter to Government, No. 1014 of 3rd September 1847, and their reply, contained in paragraph 7 of the letter No. 5536 of 16th September 1848.

it would appear that the only mistake in the English spelling was in the case of the lastnamed village, called Khodargong, and which erroneously led to the attachment of Koregaum, in Purguna Ranjungaum, in 1845, instead of Khandgaum, in Purguna Sewgaum, the village really intended by the British Govern-

ment, in the list originally forwarded; the discrepancy, however, is satisfactorily accounted for, and the suggestion that the attachment should be at once transferred from the former to the latter village met with the full approval and sanction of Government.

40. These resumptions were accordingly made; but shortly afterwards a protest, as follows, was transmitted to the Right Honorable the Governor in Council, and the items therein particularised (*i. e.* the late resumptions) appear to be the only points undecided, and regarding which the Government now desire the opinion of the Inam Commissioner. These cases will be found disposed of in the five succeeding paragraphs, and the result embodied in paragraph 46 :—

PERSIAN DEPARTMENT.—*Substance of a Memorandum from WITTUL BUGWUNT, Vaheel of the Gwalior Government, in Zillah Ahmednuggur, to the Right Honorable the GOVERNOR IN COUNCIL, dated 9th Zilkad (7th October, and received 4th December 1848).*

"In the letter of 16th September last, which I received from Government, it was stated that my master's Huks were under consideration. A letter of the same date having been issued to the Collector, he addressed me a letter on the 22nd idem, containing a reply in regard to some of the points only. The particulars of the Huks of the Gwalior Government are detailed in the copies of my memoranda to the Collector dated 17th Shaban and 12th Ramzan, Fuslee 1257 (30th July and 24th August A. D. 1847), which accompanied my memorandum to Government of the 2nd September. They are as follows :—

"1st.—Three villages, viz. 1, Koregaum, Turuf Runjungaum; 2, Khokur Muhoo, Turuf Manore; 3, Esapoor, and land situated in Moujé Waloonj, Purguna Pandè Pérugaum :—

"2nd.—Babtee, Surdeshmookee, Umuls, from sixty-eight Khalsa and Doomalla villages of Purguna Sewgaum, and thirty-seven Khalsa and Doomalla villages of Turuf Deypoor.

"3rd.—Inam lands in Moujé Bhandgaum, and five other villages in Purguna Parnair.

"The above three Huks were brought to the notice of Government, but a

decision appears to have been given without understanding the particulars. I am led to think so from the letter of 22nd September last which I have received from the Collector. I suspect that either the translation from Hindec into English was not properly made, or that the Collector did not fully understand (the case). Proper measures were not adopted. I have, therefore, deputed Huree Junardhun Vakeel to represent the circumstances to Government. I beg your Lordship in Council to listen to him, in consideration of the friendship existing between the two States, and to direct the Collector of Ahmednuggur to restore the abovementioned Huks to the Gwalior Government. Although an inquiry is now going on, the Collector has unnecessarily attached Moujé Khandgaum, Purguna Sewgaum; I therefore pray that the attachment may be removed until a settlement of all the points."

41. *Section I.*—From the foregoing it will appear that the identity of the three villages is established,—viz. 1, Esapoor, of Pandè Pérgaum; 2, Khokur Muhoo, of Manore; and 3, Khandgaum, of Sewgaum; the village of Koregaum being attached by mistake for Khodargong, which latter in reality meant Khandgaum; and we may now, therefore, proceed to analyse the Durbar claims to restitution in order of the protest. With reference to the first village, therefore, under the head of the first claim, viz. that of Koregaum, in Purguna Ranjungaum, it may be held to be already disposed of in favour of the Durbar, the attachment having been removed by order of Government. (See paragraph 39 of this report.)

*Section II. of para. 41.*—As part and parcel of the above, it may be more desirable to dispose simultaneously of the case of Khandgaum, in Purguna Sewgaum, adverted to in the concluding portion of the Vakeel Wittul Bugwunt's protest; since, on Koregaum being released, the attachment was, under the authority of Government, placed upon it (see paragraph 39 of this report). Mr. Spooner states that this village is not only not reserved by Article VIII., but is to be found in the unreserved list framed by Mr. Chaplin in 1820 of 89½ villages held in excess by Sindia, resumable on his death, and adds (letter to Government, No. 1044 of 3rd September 1847) that this said village, through some inadvertence, was omitted in the general resumptions of 1828 and 1845, in the latter year escaping attachment from being improperly spelt in the Chor Chittees transmitted by the Durbar. Although Mr. Spooner is evidently right in the former point, yet I think he must be in error in regard to the latter. I have minutely examined the list of unreserved villages framed by Mr. Chaplin in A. D. 1820, consisting of 89½, the whole of which were resumed in 1828 (see paragraphs 24 to 26, inclusive, of this report). Among these resumptions, there were Kudgaum and Khondgaum, of Turufs Bellapoor and Sungumnair, respectively (Nos. 45 and 71 respectively in Mr. Chaplin's unreserved list No. 2 attached to his letter to Government of 12th September 1820), one of which Mr. Spooner may have mistaken for Khandgaum of Sew-

gaum; but as both the former were resumed as two of the 89½ villages in 1828, it is difficult to account for the discrepancy. It is clearly proved from the records of the Poona Duftur, below extracted, that the village now in dispute, viz. Khandgaum, of Sewgaum, had been under the direct management of the Peshwa from A. D. 1770-71 to 1817-18, and, consequently, could not have been held by Sindia, except when given over to him lately by us in mistake, as remarked by Mr. Chaplin. By referring to the documentary evidence contrasted in paragraph 11 (list No. 1 attached to abovequoted letter), it will be observed that this was one of the two villages (the other, Teesgaum, being resumed in 1828 as one of the 89½) which created the only discrepancy between the new Durbar list of Sindia's holdings in "half the Purgana of Sewgaum" and the principal Dufturdar's list. Mr. Chaplin, in the column of remarks, states that Khandgaum\* had been in the Peshwa's possession for thirty years previously to 1820, and has been given up to Sindia by mistake. This fact alone would preclude Sindia's claim under the decision of Government recorded in paragraph 13, because it could not have descended uninterruptedly in the family, or even have been in its possession at the date of the Treaty.

*Section III. of para. 41.*—But evidence of a very conclusive and satisfactory nature, bearing upon this case, is to be found among the records of the Poona Duftur. The records show that the Jagheer Umuls of Khandgaum were originally granted in military Surinjam to Jyajee Sindia by a Sunud dated 25th Rubee-ool-Awul (A. D. 1752-53). On Jyajee Sindia's death, they were made over in Inam for the support of his widow, Sukoobaee, by a Sunud registered in the Peshwa's diary under date 15th Jummad-ool-Akhir (A. D. 1769-70). The widow resigned them in the same year to Moro Baboorao Fudnees, who in his turn forthwith restored them to the Peshwa; and there are now, in the Duftur, accounts forthcoming to show that Khandgaum was under the direct management of the Sirkar from A. D. 1770-71 to 1817-18. Mr. Chaplin might, therefore, very justly have stated that this village had been fifty (instead of thirty) years in the hands of the Peshwa previous to 1820. As from these facts it would appear that Khandgaum had only been in the family some seventeen or eighteen years altogether, and had never been enjoyed by Dowlut Rao Sindia at all, except when, as Mr. Chaplin mentions, it was given him lately by this Government in mistake (apparently between the years A. D. 1817-18 and 1820), his claim thereto cannot be considered in any other light than negated.

42. *Section I.*—The next village entered in the protest under the head of the first claim is Khokur Muhoo, of Turuf Manore.

*Section II. of para. 42.*—Mr. Spooner on this subject states as follows in his letter to Government No. 1044 of 3rd September 1847, paragraph 22.

\* It will be observed that this village is spelt by Mr. Chaplin Kowrgaum; it is simply the **W**, which is used as **d** or **r**, indiscriminately.

“With regard to the village of Khokur Muhoo, Sindia’s agent states that Sindia obtained the said village about one hundred years ago from the Mogul Government ; and that about ninety years ago Sindia conferred it in Inamee Jagheer on Munsoor Saheb, who was Sindia’s Gooroo, or high priest. He states also, that on referring to Article VII. of the said Treaty, it is stipulated that the lands held by Munsoor Saheb, and others whose names are mentioned, are to be continued.”

The lands reserved by Article VII. are not only limited to Hindoostan, but the exact districts are particularised.

*Section III. of para. 42.*—On the above point,—

Mr. Spooner continues, in paragraphs 23 and 24 :—“In reply to these objections (of the Agent as above), I merely have to remark, that in A. D. 1820 two lists were received from the Commissioner in the Deccan—one, of the villages which were reserved for Sindia, and the other, a list of villages which were held by Sindia, and not reserved to him by the Treaty. In this latter list the village of Khokur Muhoo, Turuf Manore (खोकर महु तर्फ मानुर) is entered. All the villages with one exception (vide paragraph 12 of this letter, corresponding with 39 and 41 of this report) entered in this latter list have been resumed. On referring to Article VII. of the Treaty, I observe that

some lands were to be continued to the said Munsoor Saheb ; but as the name, nature, and extent of the lands is not specified, there is nothing to show that the village of Khokur Muhoo was intended to be continued ; and on the other hand, as above stated, in the list submitted by the Commissioner in the Deccan in A. D. 1820, it is expressly stated that this village is not reserved to Sindia in the Treaty. It does not appear to me, therefore, that Sindia has shown any sufficient reason to induce its restoration to him.”

*Section III. of para. 42.*—Mr. Spooner, in reply to paragraph 11 of the above Government letter, No. 5536 of 16th September 1848, states as follows (letter to Government, No. 1142 of 21st June 1849) :—

“10. With regard to the village of Khokur Muhoo, alluded to in your 11th paragraph, I respectfully beg to state that the village of Khokur Muhoo is one of the villages alluded to in Government letter to this department, No. 4905 of 30th October 1845, and, in conformity with

His Lordship in Council replies, in paragraph 11 of letter No. 5536 of 16th September 1848 :—“With regard to the claim to the village of Khokur Muhoo, conferred by Sindia in Inam Jagheer on Munsoor Saheb, His Lordship in Council is of opinion that as Article VII. of the Treaty stipulates that this Munsoor Saheb shall continue to hold his lands in Jagheer under the protection of the Honorable Company, if it can be proved that he was in actual possession of this village prior to A. D. 1803, we should not, under a liberal consideration of the wording of the Treaty, now insist upon its restoration.”

the instructions therein conveyed, was taken possession of by this department in 1845-46.

" 11. On referring to the accounts of the former Government for A. D. 1776, the village of Khokur Muhoo is there entered in the name of Sindia. I am unable to ascertain when the village was made over to Munsoor Saheb by Sindia. The Vakeel states that it was made over long before the Treaty of 1803, but that he is unable to adduce any proof, as Baber Sing, who was the manager of the village, was murdered some few months ago.

" 12. The Superintendent of the Poona Duftur, in his letter No. 33 dated the 23rd February 1849, states as follows :—

“ Khokur Muhoo, Chinchpoor, and Pimpulgaum, are shown by a Talebund for A. D. 1761-62 in the Duftur, and by a Zabitali for A. D. 1774-75, relating to Sindia's possessions, to have been alienated by the Peshwa to Sindia, though the tenure is not shown, and as yet I have no clue whereby to trace Sindia's title-deeds.”

" 13. The villages of Chinchpoor and Pimpulgaum are under the management of this department, as reported in my letter to the Revenue Commissioner, No. 1082 dated the 8th September 1847, and which was forwarded to Government by the Revenue Commissioner with endorsement No. 2584 dated the 20th October 1847. If, therefore, Khokur Muhoo is restored, an application will immediately be made to have Chinchpoor and Pimpulgaum restored also.

" 14. The Munsoor Saheb is dead ; his son, Pearee Saheb, is also dead ; the only heir is an adopted son, whose adoption has not, I understand, been sanctioned by Government ; and, therefore, in the event of Government ordering the restoration of the village of Khokur Muhoo, the question would arise as to whom it should be restored, viz. to the adopted son or to the mortgagee. (Vide paragraphs 9 to 14 of my report aforesaid, No. 1082 dated the 8th September 1847.)

" 15. The said village is entered in a memorandum received in this office in A. D. 1820 from Mr. Chaplin, the Commissioner in the Deccan, as one which was to be ceded to the British Government under the Treaty of Surjé Anjungaum ; but as it was not entered in the Chor Chittees forwarded with Mr. Secretary Blane's letter of 20th November 1828, No. 1331, it was in consequence never taken possession of, or any jurisdiction exercised therein by the Company's officers, or entered in the accounts of this department, until the receipt of Government letter No. 4905 of 30th October 1845."

*Section IV. of para. 42.*—In both the above replies of Mr. Spooner to Government it is stated that Khokur Muhoo, of Turuf Manore, is one of the villages entered in Mr. Chaplin's unreserved list of 1820,—that is one of the 89½ villages held in excess of the Treaty, and resumable on Dowlut Rao Sindia's death. I cannot find the insertion alluded to by Mr. Spooner in Mr. Chaplin's list, and since (as stated in the concluding part of paragraph 15 of his last

reply) the village was not entered in the Chor Chittees (which corresponded with Mr. Chaplin's unreserved list,—see paragraphs from 24 to 26 of this report inclusive) forwarded by Mr. Secretary Blane on 20th November 1828, I conclude Mr. Spooner must be mistaken.

*Section V. of para. 42.*—Mr. Spooner is evidently under an erroneous impression, also, on the subject of the other two villages (Nos. 16 and 17 respectively in Mr. Chaplin's unreserved list No. 2 attached to his letter to Government of 12th September 1820), viz. Chinchpoor and Pimpulgaum, in stating that an application for their restitution would necessarily follow the restoration of Khokur Muhoo, seeing that the former was resumed in 1828 as two of the 89½ villages, the justice of which proceeding has never since been questioned by the Durbar, and the revival, therefore, of whose claim to which, so long since disposed of, could scarcely be anticipated as a natural consequence of the concession of Khokur Muhoo, which, *not* being one of the 89½ villages aforesaid, was not attached till 1845, and then apparently upon doubtful grounds, inasmuch as the present claim of the Durbar to its restitution is based upon no less authority than Article VII. of the Treaty, which specifically reserves certain lands, a portion of which this identical village is alleged to form.

*Section VI. of para. 42.*—With reference to Mr. Spooner's 12th paragraph, above alluded to, and the meagre account therein recorded of the history of Khokur Muhoo, I was induced to make a second reference (dated 8th July 1852) to Captain Gordon, Superintendent Poona Duftur, on the subject, whose reply is as follows :—

“ The Taleebund and Jabitah quoted by Mr. Turquand in his letter No. 33 of 23rd February 1847 inform us that the Jagheer and Surdeshmookee Umuls of Khokur Muhoo, Chinchpoor, and Pimpulgaum (exclusive of the Chouth, which was enjoyed by one Soobhanrao Maharwar) were held by Sindia ; and although the documents referred to say nothing of the tenure, a Sunud registered on the 4th Jummad-ool-Akhir (A. D. 1757-58) shows that the Umuls of these three villages were granted by the Peshwa, for the maintenance of his Paga, to Tookajee Sindia, consequently they were continuable to him so long only as his Paga was kept up.

“ Accordingly, on his failing to keep up the said Paga, the Peshwa in A. D. 1765-66 issued a Sunud, which is registered on 23rd Mohurum of that year, directing that the said Umuls should be resumed from Tookajee, and made over to one of the Peshwa's Komavidars, to be managed on account of the Sirkar.

“ It would appear, however, that in defiance of the Peshwa's order, Sindia continued in possession of the Umuls ; as in Taleebunds of Turuf Manore from A. D. 1767-68 till 1776-77 inclusive they were invariably

This letter was a reply to a reference made by Mr. Spooner, and the information it contained is given in the Collector's 12th paragraph as above.

Reply of the Superintendent Poona Duftur, dated 8th July 1852.

deducted in his name, but with the remark that ‘*the Sanud authorising his holding them had to be examined, and hitherto had not been produced,*’ apparently for the very sufficient reason that there was no such Sanud in existence.

“There is in the Duffur a Yad of various sums of money due by Sindia to the Peshwa for A. D. 1795-96, containing an entry to the effect that the Surdeshmookee and Jagheer Umuls of three villages in Turuf Manore had been held on account of his Paga by Tookajee Sindia, and after him in Surinjam by Mahadajee Sindia, but that as his tenure was *not* authorised by Sanud, the proceeds of these Umuls from A. D. 1761-62 to A. D. 1778-79 inclusive were due to the Peshwa.

“It is further stated in an endorsement to this entry, that as the Umuls of one of the three villages, viz. Khokur Muhoo (the other two having been transferred to the Nizam in A. D. 1779), were still in A. D. 1795-96 held by Sindia (unauthorisedly of course), there ought to be a separate account of those Umuls.

“The village officers of Khokur Muhoo, in a statement given in by them to the Commissioner in the Deccan in 1820, say that they made over the Umuls of the village to the Gooroo, agreeably to a Sanud from Sindia dated in A. D. 1771-72, but the Yad above referred to proves that at that period the Umuls, although unauthorisedly held by Sindia, belonged to the Peshwa ; and, consequently, that the former had no right whatever to grant them to the Gooroo, or to any one else.”

*Section VII. of para. 42.*—If admitting for the sake of argument, from the above statement given in by the village officers to Mr. Chaplin in 1820, that the village of Khokur Muhoo *was* in the possession of the Gooroo prior to the date of the Treaty, so far the fulfilment of the stipulation required in paragraph 11 of the Government letter No. 5536 of 16th September 1848 would appear to favour restoration ; but since it has been clearly shown that the village, if made over by Sindia to the Gooroo, was so at a time when it did not rightly belong to him, it will remain for Government to decide how far, under such circumstances, they may consider themselves bound to recognise the Durbar claim, even though said to be guaranteed by Article VII. of the Treaty,—the more especially as the restoration would give rise to the apprehension (Mr. Spooner’s letter to Government, No. 1142 of 21st June 1849, paragraph 14, as above extracted in full) of some new difficulty in deciding to whom the village should now be given,—the adopted son or the mortgagee,—since the Gooroo and his own son are both dead ; *but upon a careful consideration of the Treaty, it is very doubtful whether Article VII. can include any village situated in the Deccan Proper, because the reservations of that Article are not only limited to Hindoostan, but the exact districts in which the alleged reserved lands are situated are even particularised.*

43. *Section I.*—The third and last village in dispute under the head of the first claim is Esapoor, and land situated in Moujé “Waloobj, Purguna Pandè Pérangam.”

*Section II. of para. 43.*—Sindia's claim to Esapoor, and land adjacent, is based upon the simple fact of its being a hamlet tributary to Moujé Waloony, which latter (its present) village is specifically reserved by Article VIII. as one of the five villages in Purguna Pandè Pérgeum.

*Section III. of para. 43.*—In a Peshwa's Sunud under date A. D. 1752-53, conferring Moujé Waloony in Inam on Sindia, it is entered (to use Mr. Spooner's own words) "*as Waloony, inclusive of Esapoor.*" The exact words used in the original Sunud are "*Moujé Waloony Uslee and Esapoor Daklee, ekoongaon ek.*"

*Section IV. of para. 43.*—This insertion Mr. Spooner regards as an argument in favour of Government whereon the rejection of Sindia's claims to Esapoor might be founded, inasmuch as that gentleman writes (letter to Government, No. 170 of 24th January 1851, paragraph 8), if Esapoor formed an integral portion of Moujé Waloony, the entry in the Peshwa's Sunud would simply have been "Waloony," and not "*Waloony inclusive of Esapoor.*"

*Section V. of para. 43.*—This argument, however, would apparently apply with equal force to both sides, and it may be as fairly and equally presumed in favour of Sindia, that if Esapoor be a hamlet increasing in extent and prosperity, although dependent upon and tributary to its present village, yet, from being situated possibly on a distant part of the Waloony grounds, enjoying a separate though subordinate constitution (it is mentioned by Mr. Spooner himself—letter to Government No. 1044 of 3rd September 1847, paragraph 17—that Waloony and Esapoor had only one Patel and Koolkurnee and one set of village artisans between them), an entry in a Sunud alienating Mouje Waloony, with an intention, also, of conferring a large and prosperous hamlet tributary thereto, might very naturally be inserted as "*Waloony inclusive of Esapoor.*" But even admitting, for the sake of argument, Esapoor to be a "*distinct village,*" wherefore the necessity, in such a case, of an entry in a Sunud including it in "*another distinct village*" ? Would not Esapoor have acquired the same right and title to the distinctive appellation of "Moujé Esapoor" as Waloony itself ?

*Section VI. of para. 43.*—Again, Mr. Spooner and his predecessors were, apparently, of opinion (letter to Government No. 170 of 24th January 1851) that, from Esapoor not being *specifically* mentioned in Article VIII., it should belong to Government, the former gentleman having himself previously stated (letter to Government, No. 1044 of 3rd September 1847, paragraph 18) that, had it been the intention to have reserved Esapoor to Sindia, the specification in Article VIII. under the head of Purguna Pandè Pérgeum would have been "*five villages and one hamlet,*" instead of only five villages.

*Section VII. of para. 43.*—This argument, also, similarly to that before urged, may be applied, doubtless with equal force, to both sides of the question, because, it being premised by the entry in the Sunud that Esapoor was not a distinct village, but merely a hamlet included in Moujé Waloony, no separate and distinct allusion to the hamlet might have been deemed necessary by



Sindia; and, indeed, this view of the case seems to be virtually conceded by Mr. Spooner himself in paragraph 11 of the above quoted letter (No. 170, of 24th January 1851), wherein he says,—

“Had Sindia, at the time the Treaty was made, asked to have the village of Esapoor included in the items to be reserved to him, his request would, there is no doubt, have been acceded to; for, from the loose way in which the Treaty is worded, it is quite evident that the framers of the Treaty had no very distinct idea of exactly what was surrendered, and what was reserved by the Treaty.”

*Section VIII. of para. 43.*—Government, however, ere coming to a decision, appear to have considered it of importance to establish by valid documents whether, prior to the Treaty of Surjé Anjungaum, Esapoor had been entered as a hamlet of Moujé Waloony, or as a separate and distinct village, and on this point the following correspondence ensued:—

*Government Letter No. 5536 of 16th September 1848, to the Ahmednuggur Collector, paragraph 9.*

*Mr. SPOONER'S reply to Government, No. 1142 of 21st June 1849, paragraph 9.*

“With respect to the village of Esapoor, alluded to in paragraphs 17, 18, and 19 of your report, His Lordship in Council desires that you will endeavour to ascertain from ancient Delhharas, or other documents, whether prior to the Treaty of Surjé Anjungaum it was entered as a hamlet of the village of Waloony, or was a separate and distinct village of itself.”

“With respect to the village of Esapoor, alluded to in your 9th paragraph, I respectfully beg to state that, on referring to the accounts of the former Government, an extract of which was furnished me by the Superintendent of the Poona Dufur, it appears that Esapoor became a separate and distinct village of itself, and not a hamlet of Waloony, long before the Treaty of A. D. 1803. In the

accounts of A. D. 1782-83 it is entered thus:—

|                             |               |
|-----------------------------|---------------|
| Moujé Waloony, revenue..... | Rs. 3,250 6 6 |
| Moujé Esapoor .....         | 1,141 14 0”   |

*Section IX. of para. 43.*—The above reply of Mr. Spooner to Government was founded upon evidence forthcoming from the Poona Dufur, the nature of which is as follows:—

*Reference to Mr. TURQUAND (the then Superintendent of the Poona Dufur) made by Mr. TOWNSEND (the then Revenue Commissioner Southern Division), under No. 1657 dated 26th March 1851.*

*Reply of Captain GORDON (the present) Superintendent of the Poona Dufur, to Mr. FAWCETT (the present) Revenue Commissioner Southern Division, No. 59 of 9th June 1851.*

“The Collector of Ahmednuggur having with a letter dated 24th Janu-

“With reference to a letter from the Revenue Commissioner dated 26th

ary, No. 170, forwarded copy of your Murathee Yad to his department, dated 24th June 1847, No. 30, I have the honour to request that you will favour me with the further information below specified regarding the entries in the Peshwa's Duftur of the villages Waloonj and Esapoor:—

“2. The first document quoted in your Yad contains the grant of these villages, and is of the Arabic year 1154 (A. D. 1754), Arba Khumsain Mya wu Ulluf: are the two here entered as *one village*, or as two?

“3. The second document quoted is a Jabitah of the Arabic year 1175 (A. D. 1775), Khumus Subain Mya wu Ulluf, in which Waloonj and Moujé Esapoor are valued at Rs. 3,900, apparently as *one village*: is this supposition correct?

“4. The same question applies to the Jabitah next quoted of 1179 (A. D. 1779), Teesa Subain Mya wu Ulluf, in which the united value of Waloonj and Esapoor is Rs. 4,392-4-0½.

“5. A Zhurtee is then quoted of 1161 (A. D. 1761), Eeheday Sectain Mya wu Ulluf. Here Waloonj and Esapoor are entered separately, as part of eight villages alienated to Sindia: how many other villages are there to make up the eight?—in other words, do Waloonj and Esapoor count as *one* or as *two*?

“6. A similar question occurs with respect to the Zhurtee of 1183 (A. D. 1783), Sulas Sumaneen Mya wu Ulluf, where three *villages* are mentioned: how many remain to make up this number, after the deduction of Waloonj and Esapoor?

“7. In the Zhurtee of 1214 (A. D. 1814), Arba Ushen Myatain wu Ulluf, no specific number of villages is en-

March last, No. 1657, to the Superintendent Poona Duftur, requesting further information regarding the entries in the Peshwa's Duftur of the villages Waloonj and Esapoor, I have the honour to reply to the queries contained therein as follows:—

“2. In the first document referred to in the 2nd paragraph of the Revenue Commissioner's letter the two are entered as *one village*; Esapoor being the Daklee, or Mujré of Moujé Waloonj: this answer also applies to the second and third queries in the same letter.

“3. The Zhurtee referred to in the 4th paragraph of the Revenue Commissioner's letter enters Waloonj and Esapoor separately, and therefore they *count as two* in this account, *but without being* in reality *distinct* villages, for, as stated in my 2nd paragraph, Esapoor was a Mujré or hamlet of Moujé Waloonj, upon which it was dependent.

“4. A similar answer will apply to the questions proposed in the 6th paragraph of the Revenue Commissioner's letter; so that, after the deduction of Waloonj and Esapoor, one only remains to make up the number of three villages.

“5. Referring to the 8th and 9th paragraphs of the Revenue Commissioner's letter, I beg to state that the two documents quoted in a postscript to the Yad from the Superintendent Poona Duftur, there referred to, are of *higher* authority than the other accounts quoted, except the first, which is of equal authority.

“6. I regret my present inability to reply to the question contained in the 7th paragraph of the Revenue Commissioner's letter, in consequence of the Zhurtee of 1214 (A. D. 1814) there

tered: do Waloobj and Esapoor distinctly appear as two villages? I observe that in this Zhurtee, as in the preceding one, the word Moujé is prefixed to Esapoor, which seems, so far as these documents are concerned, to settle the question.

"8. In a postscript to your Yad a document is quoted of the 25th Rubbee-ool-Awul, the year Sulas Khumsain or 53,—1153 I conclude (A. D. 1753); here the two are plainly entered as one village. The next document quoted is of the year Seetain, or 70,—probably 1170 (A. D. 1770); this does not (so far as the extract contained in your Yad goes) clearly show whether Waloobj and Esapoor were reckoned in it as one or two villages?

"9. Are the two documents quoted in your postscript of equal authority with those quoted in the other parts of this letter? I request an early answer, as the question to which this reference belongs has been long pending."

*Section X. of para. 43.*—Referring to paragraph 6 of the above reply from the Superintendent of the Poona Duflur, it will be observed that he was unable to bring in evidence the Zhurtee of A. D. 1814, as requested in paragraph 7 of the contrasted letter from the Revenue Commissioner, because not forthcoming. It has, however, since turned up, and describes Esapoor as a "Moujé," yet this entry cannot tend to invalidate the original and authentic Sunud of A. D. 1752-53, which describes the grant as *Moujé Waloobj Uslee and Esapoor Dahlee, ehoongaon eh*; it may also be remarked that the Tunkha of "Waloobj dekhil Esapoor" is Rs. 3,900, and when entered separately as distinct Moujés their united Tunkha is only Rs. 3,900 and a fraction,—a proof that however Office Karkoons may have written them, they were in reality "*ehoongaon eh*."

*Section XI. of para. 43.*—From the foregoing it would appear that Mr. Spooner was scarcely justified in giving a reply to the point sought to be established by Government, in such emphatic and conclusive language, seeing that the entry of Esapoor once or twice in the accounts as Moujé was evidently erroneous, and made by mistake.

44. *Section I.*—The next claim we come to in Wittul Bugwunt's protest is *The British half of Sewgaum Purguna.* that to the restitution of the Babtee and Surdeshmookee Umuls of sixty-eight Khalsa and Doomalla

referred to not being available, although it has been searched for in the Duflur. It has probably been put by mistake into one of the numerous other roomals of papers of the late Government under my charge, or it may possibly have been altogether abstracted; that which of these suppositions is correct it may, perhaps, be impossible to ascertain until the scrutiny of the whole Duflur shall have been completed. The absence, however, of the document referred to is not, I trust, in this instance of much importance, if (as appears to me to be the case) there is without it sufficient evidence to show that Esapoor, although *entered separately in some accounts from Moujé Waloobj, was in reality a Moujé or hamlet of that village.*"

villages of Purguna Sewgaum, and thirty-seven Khalsa and Doomalla villages of Turuf Deypoor.

*Section II. of para. 44.*—It will be observed, on referring to paragraph 9 of this report, that the above items are therein specified as the second and third; and no claim is now advanced by the Durbar to the restoration of the first and fourth, to which allusion will be made hereafter.

*Section III. of para. 44.*—With reference, therefore, to the Durbar's claim to the restitution of those two items of the resumptions of 1845 as above specified, paragraphs from 34 to 37 inclusive of this report may be held as definitively negating any such unreasonable demand.

*Section IV. of para. 44.*—Referring to the other two items, viz. the first and fourth, I cannot find recorded in the correspondence under review that they were ever resumed by the British Government; indeed, in regard to the former,—viz. the Babtee and Surdeshmookee of that half the Purguna of Sewgaum, the Jagheer of which belongs to Sindia,—Government appear to have acquiesced in the suggestion of Mr. Chaplin, (recorded in paragraph 19 of this report) of the inexpediency of resuming it, even though, under the renunciations of Article V. of the Treaty, it might be considered the undoubted right of the British Government.

*Section V. of para. 44.*—It was certainly not the intention, however, of the British Government to leave Sindia in the possession of the fourth item,—viz. one-third the Surdeshmookee of the entire Purguna of Umber,—and yet, throughout the correspondence I can discover no trace of its resumption; indeed, the circumstance of its restitution not being claimed in the protest under review (or the matter referred to in any way, either by Sir R. Shakespear or the Durbar, in the Chor Chittees of 1845, in which every item surrendered in fulfilment of the demand of this Government was remarked upon) would lead to the inference that it had been overlooked, in all probability from the fact of its being the only item of these Umuls situated out of the Ahmednuggur Collectorate, in the Nizam's territory.

45. *Section I.*—The third and last claim entered in the protest is the Inamee lands in six villages in Purguna Parnair. It would appear that the Durbar desire the restoration of these Inamee lands, not so much as a matter of right, as as an act of generosity on the part of the British Government, in consideration of their having been bestowed by the Peshwa upon Sindia, not as a Sirdar or Prince, but as a Patel.

*Section II. of para. 45.*—In bringing the wishes of the Durbar in this matter to the notice of the authorities,—

Sir R. Shakespear, in his letter to Colonel Sleeman, No. 477 of 23rd September 1845, states as follows:—

“Para. 11. The last items in the list are the Inamee lands in the six villages entered at Rs. 1,523-10-0; and

Colonel Sleeman, in representing the case to Government on 2nd October 1845, No. 169, observed,—

“With regard to the lands mentioned in the 11th paragraph of Sir R. Shakespear's letter as having been

it is regarding them that the Durbar is most anxious. They state that their pecuniary value has been over-estimated in the list, but that to them the possession of these lands is a matter of very great importance, as they were given to Sindia as Patel by the Peshwa. You are well aware what importance is attached to such possessions, and that the loss of them is considered the severest misfortune and greatest

humiliation that can befall a man in this country. Their value to us is very small, and I earnestly hope you will plead for their restoration to the Durbar upon *such stipulation as may be considered necessary to prevent our police arrangements being interfered with*. This would, I venture to say, be a becoming boon to the youthful Maharaj, and would be gratefully hailed by the Sirdars as a most acceptable and valuable act of grace on our part. The claim to them rests on your generosity. We have allowed forty-two years to elapse; we have made intermediate Treaties without mentioning them; and we are now, so to speak, the young Maharaj's guardians, and these Inamee lands in the six villages in Purguna Parnair are old hereditary possessions of his ancestors."

*Section III. of para. 45.*—In connection with the above, the Supreme Government begged to be informed (despatch of 17th November 1845) "if any objections of a local nature existed to the relinquishment by the British Government of its right to these lands."

*Section IV. of para. 45.*—The following correspondence then ensued:—

The Bombay Government, in addressing the Ahmednuggur Collector on this subject on 16th September 1848, No. 5536, remarked,—

"Para. 13. His Lordship in Council would be inclined to take a liberal view of Sindia's claim to the Inam lands in six villages in Purguna Parnair, although not clearly reserved to him by the Treaty, if, as alleged by his Agent, they were really granted to him in Inam by the Peshwa by a Sunud in 1779, not as a sovereign, but as a private individual. You are therefore requested to obtain the original Sunud, and forward a translation of it to Government, after con-

given by the Peshwa to Sindia as Patel, I conclude His Excellency the Governor General would not object to leave them in possession of the family, as the Sindias in the days of their greatest power gloried in the title of Patel, with which these lands are connected, and they derive value from association, without yielding much revenue."

Mr. Spooner, in his reply to Government of 9th February 1849, stated,—

"Para. 2. The land as stated in the margin (*i. e.* the Inamee lands), the Kumal or old fixed assessment of which is Rs. 1,523-10-0, but the amount actually realised is much less than that sum, being in 1845-46 Rs. 631-9-6, and in 1846-47 Rs. 912-9-3.

"3. As directed in your letter, I wrote to the Superintendent of the Poona Duftur, and beg to annex translate of the Sunud which had been granted by the Peshwa to Sindia regarding the said Inams.

sulting the Superintendent of the "4. The Sunud is dated A. D. 1779, Poona Duftur as to its authenticity." and confers the lands in question on Sindia in perpetuity.

"5. There are no objections of a local nature to the relinquishment by the British Government of its rights to the Inams in question; and as these lands are said (by Colonel Sleeman, on 2nd October 1845, as above) to be much prized by Sindia, I would respectfully beg to suggest that I be permitted to surrender them accordingly; but, at the same time, it should be clearly intimated that Sindia has not the slightest title or claim to the lands, and that the relinquishment of them by the British Government in favour of Jyajee bin Juneajee Sindia has been purely done as an act of grace, favour, friendship, and liberality."

*Section VI. of para. 45.*—The translation of the Murathee Sunud entered in the diary or journal for Chundr, 29th Jummad-ool-Awul, Soorsun Sumain Mya wu Ulluf (A. D. 1779), now on the Poona records, called for by Government, and furnished by Mr. Spooner, runs as follows :—

"Mahadajee bin Ranajee Sindia having come to the Hoozoor station at Kusba Poona, and represented that he had served the Government for many years with fidelity, requested, therefore, that five chahoors\* of land in the villages of Purguna Parnair, Sirkar Joonere, Soobha Khojusteh Booniyad (Aurangabad), might be granted to him in Inam, for the purpose of converting into gardens for the support of his family; an order on this subject was issued to Mahadajee Narayen, Mamlutdar of the Purguna above mentioned, who, in fixing the said land in different villages, measured it more by half a beega and three pands, and the 'Chukundia,' or deeds of measurement from Mukaduns, were accordingly issued. These documents may be inspected, and the land in question, together with the excess, be granted to him, accordingly, by documents to be preserved by him. Considering his statement to be correct, and in consideration of the 'Chukundia' produced by him, the five chahoors of land, together with the excess, is granted to him as follows :—

|                            | Chahoors. | Beegas. | Pands. |
|----------------------------|-----------|---------|--------|
| " In Moujé Bhalownee ..... | 1         | 0       | 2½     |
| " Bhadgaum .....           | 0½        | 0       | 4      |
| " Padlee .....             | 1         | 0½      | 0½     |
| " Saroleh .....            | 0½        | 1       | 1      |
| " Wudgaum† .....           | 1         | 0       | 0      |
| " Kalkoop .....            | 1         | 0       | 0      |
| Total....                  | 5         | 1½      | 3      |

\* 1 chahoor = 120 beegas, 1 beega = 20 pands.

† A mistake in the translate. The Sunud and Duftur accounts, according to Mr. Turquand's report No. 71 of 14th April 1849, hereinafter quoted, agree in showing that 5 chahoors and 3½ beegas were authorised. An error of 1½ beegas and 2 pands less existing in the lauds of Wudgaum.

"The above land, viz. five chahoors, one and a half beega, and three pands, including the Swuraj, the Moglace, the Surdeshmookee, the Koolbab and Koolkanoo, the Hulleeputtee and Paisterputtee (present and future collections), the water, the trees, the grass, the wood, the stones, and the hidden treasure, and excluding the Hukdars, is granted to him in Inam; you are therefore to give him the possession thereof, and continue the same to him in perpetuity. Do not raise an objection for a fresh order every year, but take a copy of this and return the original to him for his use.

"The following documents have been issued to the effect (of) the above grant:—

|   |   |
|---|---|
| "Seven Furdneesee Sunuds,—in the name of Mahadajee Sindia ..    | 1 |
| Mukadum of Moujé Bhalownee .....                                | 1 |
| Ditto ditto Bhadgaum .....                                      | 1 |
| Ditto ditto Padlee .....  | 1 |
| Ditto ditto Saroleh Adlee .....                                 | 1 |
| Ditto ditto Wudgaum Adlee .....                                 | 1 |
| Ditto ditto Kalkoop .....                                       | 1 |
| "Two Chitneesee letters,—in the names of the present and future |   |
| Dechadeekaree Laikhuk or writers at Purguna Parnair .....       | 1 |
| Deshmook and Deshpandia of ditto .....                          | 1 |

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9

*Section VII. of para. 45.*—With a view to test the validity of the above Sunud conferring these Inamee lands on Sindia, the Superintendent of the Poona Duftur was requested (Government memorandum No. 1424 of 26th February 1849) to furnish a report, showing what entries were forthcoming in the Peshwas' records in connection therewith. The report thus called for was furnished accordingly by Mr. Turquand (No. 71 of 14th April 1849) as follows:—

"The translate referred to in paragraph 3 of the Collector's letter is of a Sunud of A. D. 1779-80, the registry of which was furnished by me with my letter dated 26th January last.

"No. 13. The Zhurtees and Taleebunds, &c. of Purguna Parnair are forthcoming from A. D. 1779-80, and up to A. D. 1812-13, inclusive. They show the land actually held as Inam by Sindia in the six villages in question to have been chahoors  $7\frac{1}{4}$ , beegas  $23\frac{1}{4}$ , and pands  $3\frac{1}{4}$ , but that out of this, Sindia, by the Sunud conferring the grant, had a right to only chahoors 5 and beegas  $3\frac{1}{4}$ , of the then assessment value of Rs. 1,005-2-0, and that during the whole of the period from A. D. 1779-80, Rs. 586 $\frac{1}{4}$  on account of the chahoors  $2\frac{1}{4}$ , beegas  $19\frac{3}{4}$ , pands  $0\frac{3}{4}$ , surreptitiously enjoyed, were annually checked, and entered as Tusulmat, or as unadjusted balance against Sindia. A comparative statement, framed from the Duftur accounts of A. D. 1789-90, of the land granted by the Sunud, and of that surreptitiously enjoyed, is annexed.

"In the Sunud's translate accompanying the Collector's letter, there is a mistake regarding the land in Wudgaum, the correct amount of which, as given by the Dufur accounts, and by the Sunud, being  $1\frac{3}{4}$  beegas 2 pands.

"By Article VIII. of the Treaty of Surjé Anjungaum, Sindia's reserved claims in Purguma Parnair are only two villages, the names of which, shown by the Dufur, are Kurdegaum and Taribaz, consequently the claim under notice is clearly exclusive of the Treaty.

"Sindia's agents may possibly claim, in the Ahmednuggur Zilla and elsewhere, other Inams, exclusive of the Treaty; and as a decision in the present case would then become a precedent, a postponed decision that would dispose of all the claims simultaneously might, perhaps, be expedient, in the ratio that there might be just grounds for compromise; otherwise, the advantages are likely to be those of Irish reciprocity, or all on one side."

*Section VIII. of para. 45.*—From the above it will be observed that the grant was made, as alleged by the Peshwa, to Sindia as a private individual, and in perpetuity; and, therefore, under the liberal views of Government, recorded in paragraph 13 of their letter No. 5536 of 16th September 1848, should be restored to him to the extent of the Sunud.

*Section IX. of para. 45.*—The following comparative statement, furnished by Mr. Turquand, show the districts in which the Durbar had surreptitiously enjoyed an excess of  $2\frac{1}{4}$  chahours,  $19\frac{3}{4}$  beegas, and  $0\frac{3}{4}$  pand, as explained in that gentleman's report, which excess, I presume, will be withheld, and the restoration simply admitted to the extent of the original grant, as authorised in the Sunud. Correcting the mistake in Wudgaum, referred to by the Superintendent of the Poona Dufur, the restoration would, therefore, embrace chahours 5 and beegas  $3\frac{1}{2}$ , as below:—

*Comparative Statement.*

| No.        | Names of Villages.    | Total Land held by Sindia. |                 |                | Land granted to him by the Sunud. |                |                | Land surreptitiously enjoyed. |                 |                |
|------------|-----------------------|----------------------------|-----------------|----------------|-----------------------------------|----------------|----------------|-------------------------------|-----------------|----------------|
|            |                       | Chrs.                      | Bgs.            | Pds.           | Chrs.                             | Bgs.           | Pds.           | Chrs.                         | Bgs.            | Pds.           |
| 1          | Moujé Bhalownee ..... | 2                          | 14              | $4\frac{3}{4}$ | 1                                 | 0              | $2\frac{1}{2}$ | 1                             | 14              | $2\frac{1}{2}$ |
| 2          | „ Wudgaum .....       | $0\frac{1}{4}$             | 23              | 1              | 1                                 | $1\frac{3}{4}$ | 2              | $0\frac{1}{4}$                | 21              | 4              |
| 3          | „ Bhadgaum .....      | $0\frac{1}{2}$             | 10              | 1              | $0\frac{1}{2}$                    | 0              | 4              | 0                             | $9\frac{3}{4}$  | 2              |
| 4          | „ Padlee .....        | $1\frac{1}{2}$             | $2\frac{3}{4}$  | 4              | 1                                 | $0\frac{1}{4}$ | $0\frac{1}{2}$ | $0\frac{1}{4}$                | 2               | $3\frac{1}{2}$ |
| 5          | „ Kalkoop .....       | 1                          | $21\frac{1}{2}$ | 0              | 1                                 | 0              | 0              | 0                             | $21\frac{1}{2}$ | 0              |
| 6          | „ Saroleh .....       | $0\frac{3}{4}$             | 12              | 0              | $0\frac{1}{4}$                    | 1              | 1              | $0\frac{3}{4}$                | $10\frac{3}{4}$ | 4              |
| Total..... |                       | $7\frac{1}{4}$             | $23\frac{1}{2}$ | $0\frac{3}{4}$ | 5                                 | $3\frac{1}{2}$ | 0              | $2\frac{1}{4}$                | $19\frac{3}{4}$ | $0\frac{3}{4}$ |

46. *Section I.*—The claims of the Durbar to restitution, therefore, as set forth in Wittul Bugwunt's protest, recorded in paragraph 40, would appear to stand thus.



## Government Orders.

1st Claim.—1st village, Koregaum, of Purguna Ranjungaum, explained in paragraph 41.

Durbar claim admitted.

As connected with the above, Khandgaum, of Purguna Sewgaum, explained in para. 41.

Durbar claim rejected.

2nd village, Khokur Mahoo, of Purguna Manore, explained in paragraph 42.

Decision required.

3rd village, Esapoor, Mujré of Waloonj, Purguna Pandè Pér-gaum, explained in para. 43.

Decision required.

2nd Claim.—The Babtees and Sur-deshmookees in Deypoor, and the British half of Purguna Sewgaum, explained in paragraph 44.

Durbar claim rejected.

3rd Claim.—The Inanee lands of six villages in Purguna Parnair, explained in paragraph 45.

Apparently conceded as an act of liberality to the extent of the original Sunud, viz. 5 chahoors and 3¼ beegas. Final orders required.

To the above may be added, as part of the “2nd claim,”—

1st Item.\*—The Babtees and Sur-deshmookees in Sindia’s half of Purguna Sewgaum, explained in paragraph 44.

Apparently conceded as an act of liberality. Final orders required.

4th Item.\*—One-third the Sur-deshmookee of the Purguna of UMBER.

The right of Government established, and if, as remarked in paragraph 44, the resumption has hitherto been overlooked, the final orders of Government should be solicited.

*Section II. of para. 46.*—While on the subject of these Umuls, it would seem necessary to remark upon that small item, which, although apparently lost sight of by Wittul Bugwunt in his protest, *should* form part of the Durbar claims; inasmuch as the attention of Government was directed to it, both by Sir R. Shakespear and the Durbar (vide paragraph 38 of this report, Section II.) at the time of the transmission of the Chor Chittees of 1845; and it would, therefore, be desirable to dispose of the matter simultaneously with the other claims, that no vexatious revival thereof may occur. It would appear that in accordance with Government letter dated 29th December 1842,

\* Recorded in paragraph 9 of this report; excepting, however, such villages of Sindia’s “half of Sewgaum” as have since passed, or may hereafter pass, into the hands of the British.

seven villages of Sindia's half of the Purguna of Sewgaum were received from His Highness, in exchange for the village of Samp, the Babtee and Surdeshmookee of which said seven villages, the Durbar remark, should remain with them. These seven villages formed part of Sindia's reserved half of Sewgaum, the Babtee and Surdeshmookee of which, it has been shown, the British Government deemed it inexpedient to resume, and, therefore, so long as these villages remained to him, such items of revenue were his undoubted right; but as these villages, under the terms of the exchange, passed into the hands of this Government in 1842 (Sir R. Shakespear's letter No. 477 of 23rd September 1845, paragraphs 7 and 10), and formed an integral portion of the British possessions in Sewgaum, from that date they were included in the list of villages, the Babtees, Surdeshmookees, &c. of which the Durbar were called upon to relinquish in 1845, and which, under protest, they resigned accordingly.

*Section III. of para. 46.*—The validity, therefore, of the Durbar's claim to the restitution of the Babtees, and seven villages, does not appear in any more favourable light than that to similar items of revenue from the other British villages in Sewgaum, which has already been negatived.

47. *Section I.*—Having thus disposed of the Durbar's present claims, it would seem only necessary now, in conclusion, to form some classification of the present possessions of Sindia; and also to define the exact meaning of Article V. of the Treaty, with a view to establishing a principle, under the sanction of Government, for the more easy adjudication of any cases in connection with this subject which may hereafter arise for investigation.

*Section II. of para. 47.*—It must be remembered that, on the final overthrow of Dowlut Rao Sindia, the British Government, with a view to bringing His Highness the sooner to terms, placed under *nominal* attachment his entire possessions, and it was only when "assured that his compliance was the only means of averting the entire conquest of his territories" that he submitted to the terms of his conquerors. This timely submission, therefore, of Dowlut Rao Sindia, averted the total loss of his dominions; and although he was never virtually dispossessed, yet the nominal attachment placed upon his territories generally, by the British Government, may explain the sentence "shall be restored" used immediately following the list of reservations in Article VIII.

*Section III. of para. 47.*—On the framing of the Treaty at Surjé Anjungaum on 30th December 1803, Sindia, after ceding his entire territories south of the Ajunta Range under Article IV., and renouncing for ever all rights and interest therein by Article V., appears to have thrown himself upon the generosity of his conquerors in petitioning to be allowed to retain certain lands and villages, which "*having descended in the family from generation to generation*" (extract translation of the original Persian), had become old hereditary possessions.

*Section IV. of para. 47.*—The British Government, therefore, in perfect reliance upon the good faith of this assertion, conceded lands and villages as

specified in Article VIII. The classification, therefore, of Sindia's present possessions in the Deccan, may be made as follows :—

1st.—His present possessions, whether connected or unconnected with sovereignty, not specifically reserved by Article VIII. of the Treaty.

These may be either,—

I.—Original, or of a date prior to the accession of the Peshwa.

II.—Modern, or subsequent thereto ; either of these two subdivisions being again susceptible of division into those which at the date of the Treaty were “ authorisedly” and “ unauthorisedly” in the possession of the family, or not obtained till afterwards.

2nd.—His present possessions, whether connected or unconnected with sovereignty, *specifically reserved* by Article VIII., under Sindia's good faith, pledged to the British Government, that they were old hereditary possessions, “ *descended in the family from generation to generation.*”

These may be subdivided into,—

I.—Those which fulfil the stipulations of Article VIII.

II.—Those which do not.

*Section V. of para. 47.*—With regard to the 1st Class, it would scarcely seem possible, after the voluminous correspondence on the subject, and the consequent scrutiny into the tenure of Sindia's unreserved possessions, which resulted in the resumptions of 1828 and 1845, that any holdings of considerable extent belonging to this class could still be in existence. If, however, any such should have inadvertently escaped notice, and hereafter come to light, they would of course be liable to immediate attachment.

*Section VI. of para. 47.*—In regard to the subdivisions of this class, which (as it is presumed all the larger unreserved holdings have been resumed) must be considered chiefly to embrace petty Ipams, Wutuns, and Huks of different kinds of a private nature, I am of opinion that their future recognition would depend upon the construction Government are pleased to place upon the tenor of the Treaty generally, or, perhaps, upon the wording of Article V. in particular, as to whether the renunciations therein contained embrace every petty Huk and interest of Sindia as a Patel and private individual, or merely those of a Sirdar or prince. Mr. Spooner and his predecessors were evidently of opinion that Article V. contained a complete abandonment by Sindia of Huks of every denomination south of the Ajunta Range, as well those of a private individual as of a Sirdar or prince,—in fact, that nothing of any description remained to him, beyond the reservations of Article VIII. The correspondence on this point generally, however, leads me to the conclusion that the renunciations by Sindia were merely those of a Sirdar or prince, and that it was not the wish or intention of the British Government to deprive him of any petty possession, held as a private individual, under the same tenure and terms as any other Wutundar in the Deccan.

*Section VII. of para. 47.*—This would also appear to be the construction placed upon the general tenor of the Treaty by the successive Residents at the

Gwalior Court throughout their correspondence, and, indeed, it may fairly be presumed to be the impression of Government, judging from the consideration it has been pleased to accord to the Durbar's claim to the restitution of the Inamee lands in Purguna Parnair, the only instance of a petty claim of a private nature submitted for the decision of Government throughout the entire correspondence.

*Section VIII. of para. 47.*—With regard to Subdivision I. of Class 2, there can be no doubt of their authorised nature ; and it is only in reference to Subdivision II. that I would beg to direct attention. It may be argued that as the lands and villages coming under this head were specifically reserved by Article VIII., and the error not discovered *at the time*, it would involve a breach of faith to interfere with them *now* ; yet, on the other hand, it may doubtless be urged, that although these concessions were made in perfect reliance upon the good faith of Dowlut Rao Sindia, pledged to the British Government, that they fulfilled to the letter certain stipulations, they are nevertheless capable of proof to the contrary. That reasonable ground exists for supposing that a portion of Sindia's *specifically reserved* possessions do not fulfil to the letter the stipulations under which they were conceded by the British Government, a reference to the Superintendent of the Poona Duffur's letter No. 78 of the 4th May 1850 (with its several enclosures), to the address of the Revenue Commissioner Southern Division, and Mr. Spooner's reply thereto, No. 1358 of 17th June following, contained in paragraphs from 1 to 6 inclusive, will clearly show ; though how far Government may consider it expedient to acquiesce in the arguments adduced by those gentlemen, for and against resumption of this description of holdings, is a point which requires decision ; for although paragraphs 13 and 15 of this report contain generally the sentiments of Government that that portion only of the reservations of Article VIII. should be respected, in "enjoyment" or "possession" of which Sindia was at the date of the Treaty, yet, in the adjudication of cases coming under this subdivision, as well as that subdivision of Class 1 wherein the "*unauthorised*" nature of the tenure at the date of the Treaty is susceptible of proof, it would be very necessary to ascertain the exact meaning intended to be conveyed by Government in the application of the words "*possession*" and "*enjoyment*,"—whether they be intended simply to denote tenure at the date of the Treaty, without reference to its terms previously or in what manner obtained, or whether to imply "*actual authorised*" and *valid title*, acknowledged by the existing ruling power at the different periods of its descent down to the date of the Treaty.

(Signed) A. T. ETHERIDGE,  
Assistant Inam Commissioner.

*November 23rd, 1852.*

No. 1497 OF 1853.

## TERRITORIAL DEPARTMENT, REVENUE.

TO J. P. GRANT, Esq.,

Secretary to the Government of India.

SIR,—With reference to former correspondence relative to Sindia's title to possessions in the Deccan, I have been ordered by His Lordship in Council to request you will place before the Government of India the accompanying papers, viz :—

No. 1.—Compilation sent to Mr. Hart, Inam Commissioner, under date 1st July 1851, No. 6827.

No. 2.—Ditto sent to the same officer under date 15th July 1851, No. 7287.

No. 3.—Report from Mr. Hart, dated 11th December 1852, No. 1432, with accompaniments.

No. 4.—Copy of a letter from Mr. Hart, No. 1559 dated 10th January 1853.

No. 5.—Ditto ditto, No. 1621\* dated 19th January 1853, from ditto.

2. Several of the papers in the compilation entered above as No. 1 are already on the records of your Government ; but they are sent in a complete form for easy reference, and His Lordship in Council has desired me to request that compilations 1 and 2 may be returned to Bombay, as they belong to the Office of the Inam Commissioner.

3. His Lordship in Council considers that the facts and merits of the claims have been placed in a sufficiently clear light by Lieutenant Etheridge and Mr. Hart in the papers entered as No. 3 in the list.

4. The establishment of the Inam Commission having provided a series of Courts vested with original and appellate jurisdiction, the whole of Syajeerao Sindia's claims in the Deccan, whether to restitution of what has been resumed, or to the retention of what is still enjoyed, should, His Lordship in Council is of opinion, be made over for regular trial by that Commission ; any present arrangement being made contingent on final adjudication, as recommended by Mr. Hart in his 3rd paragraph.

See Act XI. of 1852.

5. Government approve, in so far as they can at present judge, of the principles for a general adjudication of Sindia's title which are submitted in paragraphs 5 to 28 of Mr. Hart's letter of 11th December 1852, No. 1432 ; but they may see reason to modify this opinion as regards particular cases coming before them on appeal.

6. In their letter of 28th January 1835, the Government of India have

\* Copy of the paper referred to by Mr. Hart was forwarded to the Government of Bengal with a letter from this Government, No. 160 dated 7th February 1824, in the Political Department.

expressed an opinion that Sindia and Holkar are not entitled to greater privileges or consideration with regard to their possessions in the Deccan than ordinary persons holding lands &c. on similar tenures, and in this view of the case the claims might be disposed of as above, without reference to your Government; but as Sindia's claims in the Deccan have already been the subject of references between the Governments of India and Bombay, and as the provisions of a Treaty made with Sindia as a sovereign prince are concerned, His Lordship in Council considers it advisable to defer acting on this opinion until favoured with the directions of the Most Noble the Governor General of India in Council.

7. His Lordship the Governor in Council has desired me to solicit the favour of a careful perusal of Mr. Hart's letter of 11th December, No. 1432, and its accompanying report from Lieutenant Etheridge, as also of the late Revenue Commissioner's letter of 7th April 1851, No. 1729, and its accompaniments, referred to in the 14th and sequent paragraphs of Mr. Hart's letter.

8. The Governor in Council has also ordered me to urge on the Government of India that it is very desirable a reply should be received at an early date, so that the long discussed subject may be finally disposed of whilst officers acquainted with its merits are in a position to complete the necessary investigation and trial.

I have the honour to be, &c.

(Signed) H. E. GOLDSMID,

*Bombay Castle, 10th March 1853.*

Secretary to Government.

No. 2007.

FOREIGN DEPARTMENT.

From C. ALLEN, Esq.,

Officiating Secretary to the Government of India,

To H. E. GOLDSMID, Esq.,

Secretary to the Government of Bombay.

*Dated Fort William, the 29th April 1853.*

SIR,—I am directed by the Governor General in Council to acknowledge the receipt of your despatch dated the 10th ultimo, No. 1497, to the address of the Secretary to the Government of India in the Home Department, forwarding a lengthened correspondence, and requesting an early reply on the question of Sindia's title to certain possessions in the Deccan; and, in reply, to acquaint you that His Lordship in Council has reviewed the subject, but before pronouncing a final opinion he has thought it necessary to refer the points on which a decision is called for to the Agent to the Governor General for the affairs of Sindia's Dominions, for his opinion.

I have the honour to be, &c.

(Signed) C. ALLEN,

*Fort William, the 29th April 1853.*

Offg. Secy. to the Govt. of India.

No. 2836.

FOREIGN DEPARTMENT.

FROM J. P. GRANT, Esq.,  
Officiating Secretary to the Government of India,

TO H. E. GOLDSMID, Esq.,  
Secretary to the Government of Bombay.

*Dated Fort William, 24th June 1853.*

SIR,—In continuation of the letter dated the 29th of April last, No. 2007, relative to Sindia's rights in the Deccan under the Treaty of 1803, I am directed by the Governor General in Council to transmit to you the accompanying copy of a despatch, No. 52 dated 12th May, from the Agent to the Governor General for the affairs of Sindia's Dominions, on that subject, and to request the consideration by the Right Honorable the Governor in Council of the points therein discussed by Mr. Bushby.

I have the honour to be, &c.

(Signed) J. P. GRANT,  
Officiating Secretary to the Government of India.

*Fort William, the 24th June 1853.*

No. 52 OF 1853.

FROM G. A. BUSHBY, Esq.,  
Agent Governor General for Sindia's Dominions,

TO C. ALLEN, Esq.,  
Officiating Secretary to the Government of India,  
Foreign Department, Fort William.

*Dated Jhansie, the 12th May 1853.*

SIR,—I have the honour to acknowledge the receipt of your letter, No. 2008 dated the 29th ultimo, with the stated accompaniments, relative to Sindia's rights in the Deccan under the Treaty of 1803.

2. The Maharaja Dowlut Rao Sindia, by Article IV. of the Treaty of Surjé Anjungaum, ceded to the Honorable Company and their allies all the territories which belonged to him previous to the breaking out of the war, situated to the southward of the hills called the Ajunta Hills. He renounced in Article V., for himself, his heirs and successors, all claim to these territories, and all claims of every description upon the British Government, and their allies the Soubhadar of the Deccan, the Peshwa, and Anund Rao Gaekwar. In Article III. the Maharaja ceded to the Honorable Company and their allies, in perpetual sovereignty, the fort of Broach and territory depending thereon, and the fort of Ahmednuggur and territory depending thereon, excepting those

lands which it was agreed by Article VIII. of the Treaty that the Maharaja was to retain.

3. The main purpose of the Treaty was to deprive Sindia of his territories in the countries specified in Articles II. III. and IV. The reservation at the end of Article III., by which the Maharaja ceded to the Honorable Company and their allies, in perpetual sovereignty, the fort of Ahmednuggur and territory depending thereon, "*excepting those lands which it is agreed by Article VIII. of this Treaty that the Maharaja is to retain,*" refers to villages in which he had no rights of sovereignty.

4. They had been "lately taken possession of by the British Government and their allies," and we bound ourselves to restore them to the Maharaja, "provided that no troops shall ever be introduced into those lands and villages under pretence of collecting the revenues, or any other pretence whatever."

5. We were treating with Dowlutao Sindia, not as Patel of a village, but as prince or chief of a principality. He ceded his sovereignty, and we engaged to respect his family or personal interests in certain lands, villages, &c. in the territories of the Peshwa, Rao Pundit Prudhan. They are generally described in Article VIII., but not with the precision which would have been used if *thereby* it had been intended to grant either more or less in the lands, &c. than the family of Sindia then possessed. For example, we do not find in the list the native village of the prince Patel;\* only the designation of certain Purgunas in which, in a certain number of villages, Sindia had an interest, with Purguna Choomargondey, and the villages of Jambgaum and Ranjungaum in the territories of the Peshwa, which we promised to restore to him.

6. It must, therefore, be inferred that only things were relinquished and reserved by the Treaty possessed by Sindia either by virtue of conquest or by grants from the Peshwa, not that the Treaty was to exclude Sindia from all descriptions of property,—family or personal property in land that he enjoyed,—other than in the villages and Purgunas particularised in Article VIII. This appears to me to be a sufficiently rational and practical view of those parts of the Treaty to which you direct my attention.

7. We seem to have no difficulty now in determining what was to be restored according to Article VIII., though we may not choose to recover what may have been already lost by a wrong interpretation of the Treaty that has received the deliberate sanction of our Government, or to open new questions

\* Duff, in his *History of the Murathas*, says:—"All the principal Muratha officers had, as a further means of preserving intercourse and union, particular claims assigned to them on portions of revenue, or on whole villages in the districts of each other. The greatest Muratha commanders, or their principal Brahmin agents, were eager to possess their native village; but, although vested with the control, they were proud to acknowledge themselves of the family of the Patel or Koolkurnee; and if heirs of a Miras field, they would sooner have lost wealth and rank than been dispossessed of such Wutun or inheritance. Yet, on obtaining the absolute sovereignty, they never assumed an authority in the interior village concerns, beyond the rights and privileges acquired by birth or purchase, according to the invariable rules of the country."—Page 461, Vol. I.



with the Durbar, or to suggest new principles of settlement where we have, virtually, by our own past decisions or our own past conduct, declared our sense of the compact concluded.

8. In every other respect, that is to say in respect to all claims not guaranteed by Article VIII., we may treat them, though preferred by Sindia, exactly as we would treat them if they were preferred by private individuals.

9. It may be here remarked, in confirmation of my notion that Dowlut Rao Sindia was only transferring his rights of sovereignty, that in the Partition Treaties (1804) with His Highness the Soubhadar of the Deccan and His Highness the Peshwa, the cessions referred to are termed cessions and possessions "in perpetual sovereignty"; and in neither the Treaty with the Soubhadar nor in that with the Peshwa is there one word mentioned of the rights reserved to Sindia by Article III. or Article VIII. of the Treaty of Surjé Anjungaum, though, as Lieutenant Etheridge, Assistant Inam Commissioner, shows in paragraph 3 of his report to Mr. Commissioner Hart, and other parts of his paper, some of the villages are situated in the Nizam's, some in the late Peshwa's country, and some in Sattara. This circumstance may, I think, further indicate as well what we meant to do as what we did not mean to do by Article VIII. We simply guaranteed the restitution of the properties enumerated in Article VIII., without prejudice to any other grants or possessions which Dowlut Rao Sindia might hold in Jagheer, Surinjam, or other tenure, or any rights which he might have as a village Patel, or any perquisites which he might enjoy from the former revenues of the Muratha Empire, such as the Babtees and Surdeshmookees to which you allude in paragraph 13 of your letter.

10. Moreover, this construction agrees in a great measure with what I understand in the 29th paragraph of Lieutenant Etheridge's report to have been the opinion expressed by the Court of Directors in their despatch of the 28th January 1835, on the subject of the jurisdiction exercised by Sindia and Holkar in their Deccan villages by the forbearance of the supreme authority. It is obviously, therefore, needful to keep constantly before us in the present discussion the broad distinction between the right of jurisdiction vested in the supreme or sovereign authority, and the right of Sindia, whether as proprietor of Wutundaree estates or as grantee in the enjoyment of particular portions of the public revenue, hereditary or otherwise, with or without condition of service, &c.,—the right, in short, which I argue was reserved by Article VIII. of the Treaty of Surjé Anjungaum in the Inams there referred to, and in all similar possessions and privileges of Sindia not ceded by that instrument, though they were not specially reserved.

11. The possessions and rights of the head of the Sindia family are of two descriptions,—one based on the Treaty of 1803, the other on his claims as an hereditary Wutandar of the Peshwa.

In regard to the first, he is a sovereign prince, holding lands, &c. ceded to his ancestors by the British Government and their allies. No proceeding of

the Bombay Government or Inam Commissioners can affect these. They can alone be disposed of by means of negotiation between the British Government and Sindia. The term "authorised," as applied by Mr. Commissioner Hart to Sindia's right of possession to these lands, and the proposal that they should now be considered to be held on the same tenures as those on which they were granted by the Peshwa, are, in my opinion, inappropriate.

With these tenures we have nothing to do : we allowed Sindia to cede them to us as sovereign possessor, and in virtue of the same power we ceded a portion of them back ; this closed all connection between Sindia and the Peshwa in as far as these districts were concerned ; they were thenceforward possessions of the Sindia family, and duly "authorised." It would be a breach of faith were we to allow the question even to be mooted. From the condition of slipper-holders, the family had risen to sovereignty, and, as they rose, probably retained in their own hands lands granted for military service without performing the duties attached thereto. The Peshwa and the British Government, in Treaty with Sindia, allowed him to dispose of these lands, as well as Ahmednuggur, Broach, and others, as sovereign possessions ; and as we gave them back in this wise, the question as to the original tenures on which they were held appears to me to be now inadmissible.

In regard to Sindia's claims as a private Wutundar, the Bombay Government are perfectly at liberty to dispose of them as they would those of any other Wutundar.

12. Under all the circumstances of this very complicated question, I am inclined respectfully to deprecate all further agitation of the subject, and to abstain from any resumptions whatever from Sindia of the possessions which he still retains in the Deccan. The few trifling corrections of error and procedure suggested in paragraphs 40, 41, and 43 of Lieutenant Etheridge's report are clearly demanded by justice, and should be made without loss of time.

13. I see no sufficient cause for concerning ourselves especially about the village of Khokur Muhoo (paragraph 42), or for any extra-judicial interference with the claims of the adopted son of the Gooroo grantee and alleged mortgagee. When the Government relinquishes its doubtful title,—which I am disposed to consider the preferable mode of terminating the point in dispute with the Durbar of Sindia,—the ordinary tribunal or civil court will probably have a legitimate jurisdiction in the remaining question.

14. The Bantees and Surdeshmookees (paragraph 44) I would leave entirely as they are, without claim on either side, now or hereafter. It is impossible to say what was the intention of the British Government ; and so far from it being certain, as Lieutenant Etheridge supposes in Section V. of paragraph 44 of his report, that Sindia was not to be left in possession of one-third of his Surdeshmookee in the Nizam's Purguna of Umber or Ambud, of the resumption of which Lieutenant Etheridge could discover no trace, I beg to remind you that only last year Mr. Commissioner Ellis awarded to Sindia an

annual compensation for his Surdeshmookee Huks in the said Purguna, payable by the Nizam. (See Sir Henry Elliot's letter No. 82 dated 7th January 1852, and Governor General's Agent's letter No. 37 dated 15th March 1852, &c.)

15. On the subject of paragraph 15 of your letter, I am of opinion that it is too late to bring forward Mr. Commissioner Hart's new argument. No investigation or reservation was understood at the time, and none can be applied now. The mistake or discrepancy between the Persian and Murathee and English versions of the Treaty is made too much of. No condition or qualification of hereditary incumbency has heretofore been required. I would act in respect to the grants or possessions in question as argued at the end of your 14th paragraph, and let bygones be bygones.

16. Adopting the views which I have here taken the liberty to advocate, and which I submit with deference, for they do not always accord with the sentiments which I find recorded in quarters which command my highest respect, I meet Lieutenant Etheridge at Section I. of the 46th paragraph of his report with the following suggestions:—

1st.—Claims on Wittul Bugwunt's protest to be admitted in regard to Koregaum, but rejected in regard to Koondgaum (a special case). The village of Khokur Muhoo to be relinquished; also the village of Esapoor, as the Mujré or Dakilee of Waloobj.

2nd Claim.—The Babtees or Surdeshmookees in Deypoor and the British half of Purguna Sewgaum. The Durbar claim to be rejected.

3rd Claim.—The Durbar claim to be admitted entire. The first item in part of the 2nd claim—the Babtees and Surdeshmookees in Sindia's half of Purguna Sewgaum—to be conceded in full. The fourth item, one-third of the Surdeshmookee of the Nizam's Purguna of Umber or Ambud, already finally disposed of. (See paragraph 14 of this letter.)

17. The argument of Lieutenant Etheridge in Section II. of paragraph 46 of his report, respecting the seven villages of Sindia's half of the Purguna of Sewgaum exchanged with us for Samp, is, in my opinion, sound. The Babtee and Surdeshmookee must be deemed to have gone with the villages.

I have the honour to be, &c.

(Signed) G. A. BUSHBY,  
Agent Governor General.

*Gwalior Agency Office, Jhansie, the 12th May 1853.*

(True copy)

(Signed) J. P. GRANT,  
Officiating Secretary to the Government of India.

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No. 4396 OF 1853.

TERRITORIAL DEPARTMENT, REVENUE.

To the INAM COMMISSIONER.

*Copy of the Resolution passed by Government under date 30th July 1853, on a Letter from the Officiating Secretary to the Government of India, No. 2836 dated the 24th June 1853, with accompaniment, relative to Sindia's title to possessions in the Deccan under the Treaty of 1803.*

This should be referred to the Inam Commissioner.

2. As Mr. Hart consulted Captain Cowper on several points before submitting his reports on Sindia's claims, His Lordship in Council wishes Mr. Manson, in the first instance, to refer the present papers to that officer.

(Signed) A. MALET,  
Chief Secretary to Government.

No. 3770.

From C. J. MANSON, Esq.,

Inam Commissioner,

To H. E. GOLDSMID, Esq.,

Officiating Chief Secretary to Government.

*Dated Poona, 29th August 1854.*

SIR,—With reference to the Government Resolution No. 4396 dated 30th July 1853, on a letter from the Officiating Secretary to the Government of India, No. 2836 dated 24th June 1853, with accompaniments, relative to Sindia's title to possessions in the Deccan under the Treaty of 1803, I have the honour to report that, in accordance with its 2nd paragraph, I referred the papers to my Assistant, Captain Cowper, and now beg to hand up his masterly statement of the case, as contained in the annexed letter, No. 361 dated 4th July 1854.

2. With the above report, any observations or explanations from me would be superfluous. I shall therefore merely remark that, after an attentive consideration of the past transactions, and viewing the evasive conduct throughout of Sindia's Durbar, it seems only fit and proper that Government should now enforce the provisions of Article VIII. of the Treaty to the very letter, just as if it had been ratified but yesterday; since the letter of that Article accords strictly with the intentions of the contracting powers, as evidenced by the English minutes of the conferences which were held before the Treaty was finally settled.

I have the honour to be, &c.

(Signed) C. J. MANSON,  
Inam Commissioner.

No. 361 OF 1854.

From Captain T. A. COWPER,  
Assistant Inam Commissioner,  
To C. J. MANSON, Esq.,  
Inam Commissioner.

*Dated Poona, 4th July 1854.*

SIR,—I have the honour, under the instructions noted in the margin, to report upon the holdings in the Deccan which, though still in the possession of His Highness Sindia, appear, under the Treaty of Surjé Anjungaum, to belong to the British Government.

Government Resolution in the Revenue Department, No. 4396 of the 30th July 1853, copy of which accompanied the Inam Commissioner's letter No. 2331 of the 5th August following.

2. The question eventually to be decided by the Government of India I understand to be whether these claims ought, and are to be adjudicated according to the letter or the spirit of the Treaty, or according to both, or according to neither.

3. The Treaty of Surjé Anjungaum was concluded with Dowlut Rao Sindia on the 30th December 1803, and Articles III. IV. V. and VIII., which are below quoted (from the published book of Treaties compiled by order of Government) provided for certain cessions to be made by Sindia :—

“ ARTICLE III.

“ The Maharaja likewise cedes to the Honorable Company and their allies, in perpetual sovereignty, the fort of Broach and territory depending thereon, and the fort of Ahmednuggur and territory depending thereon, excepting those lands which it is agreed by Article VIII. of this Treaty that the Maharaja is to retain.

“ ARTICLE IV.

“ The Maharaja likewise cedes to the Honorable Company and their allies all the territories which belonged to him previous to the breaking out of the war which are situated to the southward of the hills called the Ajunta Hills, including the fort and district of Jalnapoor, the town and district of Gaudapoor, and all other districts between that range of hills and the river Godavery.

“ ARTICLE V.

“ The Maharaja Alija Dowlut Rao Sindia, for himself, his heirs and successors, hereby renounces all claim to the forts, territories, rights, and interests ceded by Articles II. III. and IV., and all claims of every description upon the British Government and their allies, the Soubhadar of the Deccan, the Peshwa, and Anund Rao Gaekwar.”

“ ARTICLE VIII.

“ Whereas, the Maharaja Dowlut Rao Sindia has represented that his family

have long held in Inam certain lands, villages, &c. in the territories of Rao Pundit Prudhan, viz.—

Chamargondey Purguna,  
 Jambgaum,  
 Ranjungaum,  
 Half of Sewgaum Purguna,  
 Six villages in Umber Purguna,  
 Five villages in Pytun Purguna,  
 Five villages in Newaseh Purguna,  
 Five villages in Kural Purguna,  
 Six villages in Poona Purguna,  
 Two villages in Waeer Purguna,  
 Six villages in Patoda Purguna,  
 Five villages in Pandè Pérgaum Purguna,  
 Five villages in Pagood Purguna,  
 Two villages in Parnair Purguna,

which have been lately taken possession of by the British Government and their allies, it is agreed that those lands and villages shall be restored to him, provided that no troops shall ever be introduced into those lands and villages under pretence of collecting the revenue, or any other pretence whatever.”

4. In this case it must be of the greatest importance to determine the intentions of the contracting parties, and the means of doing so with certainty and precision have been fortunately found in the minutes of the conferences at which the provisions of the Treaty were discussed and determined.

5. These conferences took place between the late Duke of Wellington (then Major General Wellesley) and Dowlut Rao Sindia's Vakeels, either the Honorable Mr. Elphinstone or Sir (then Major) J. Malcolm (both afterwards Governors of Bombay) being generally present.

6. The following are extracts from the minutes of the conference held on the 11th December 1803, at which Mr. Elphinstone was present :—

“ The Vakeels then adverted to the demand of Ahmednuggur. They gave up the fort without much difficulty, but they insisted upon keeping the territories depending upon it, or rather those territories of which the British Government had taken possession. They said that these were the ancient family lands of Sindia, and that he never could consent to give them up.

“ The Vakeels said that these lands were not Jagheer, but were Inam ; that Sindia kept no troops in them ; and that there could, consequently, be no disputes or plunder, such as Major General Wellesley apprehended. They said that these lands were the family estate of Sindia, and he never could consent to part with them.”

7. The next extracts are from the minutes of conference of the 26th of the same month, at which Major Malcolm was present :—

“ Major General Wellesley said that when conversing with Gorpura upon

a former occasion upon the subject of the terms of the peace, Gorpura had expressed the great desire of the Maharaja to retain districts and villages in Ahmednuggur, to which Major General Wellesley had objected. He wished now to know whether the Maharaja was determined upon this point.

"In reply, the Vakeels explained that these lands were, in fact, the Inam lands or family estate of the Maharaja, and that he was very desirous to retain them."

"In reply, the Vakeels urged that these were Inam lands, respecting which there never had been, and never could be, any question; and they said they were willing to leave the decision of the point to the Ministers of the Nizam or of the Peshwa.

"Major General Wellesley said that he knew these lands were Inam, but the point was the Murathas were in the habit of urging and establishing their claims to benefits of this description at the head of large armies, which were thus introduced into the heart of the territories of the Company's allies. Major General Wellesley said that, at all events, he insisted upon it that no armed force should ever be introduced into their territories on any pretence whatever.

"After a long dispute upon this point, in the course of which the Vakeels repeatedly declared their readiness to appeal to the Peshwa's or the Nizam's Ministers, and the fear of the Maharaja that he should be disgraced by this cession, Major General Wellesley at last agreed that they should have Chamargondey, &c. &c., provided that no armed men were ever to be introduced in those parts, whether with a view to the collection of the revenue, or under any pretence whatever.

"The Vakeel said that the Maharaja possessed those districts also to the northward of Jeypore, Joudpoor, and Gohud, which had been given in Inam to his family by the Kings of Hindoostan, and were not included in the Dufturs. Their names were Wholepoor, Bance, and Raja Kerrah.

"Major General Wellesley replied that those also should remain to him in Inam under the Company's protection, on the same conditions as the Inam lands about Ahmednuggur."

8. On the 28th of the same month, Major Malcolm being present, a conference took place, from the minutes of which the following are extracts:—

"Upon the perusal of Article VIII. the Vakeels said that there were other villages which had belonged to Sindia, which they were desirous to possess, the names of which, and of the Purgunas in which they were situated, they had forgotten.

"Major General Wellesley said that there was no intention to deprive Sindia of his personal property, but that it was impossible to enter in a Treaty anything so indefinite as the claim just stated; he said, however, that he had no objection to write them a letter, in which he should engage to

them that they should have the villages in question, provided they were really Sindia's private property, and provided all the stipulations of Article VIII. were carried into execution respecting them, as well as respecting the villages named in the Treaty."

9. The foregoing (paragraphs 3 to 8) proves, I think conclusively, that Major General Wellesley consented to leave with Sindia nothing whatever but Inam holdings, and that everything thus asked for on Sindia's account was distinctly and emphatically stated to be of this description,—“ These lands were (General Wellesley was informed) not Jagheer, but were Inam.”

10. General Wellesley, in his despatch of the 30th December 1803 to the Governor General, fully recapitulated the circumstances under which the Deccan possessions had been left with Sindia. The following is the passage to which I refer; it clearly shows the unwillingness which there was to leave any Deccan lands whatever in Sindia's possession, and it shows just as clearly that what were thus left he was allowed to retain only on the faith of the assertion that they were “ really his family property”:—

“ The territories restored in the neighbourhood of Ahmednuggur are the ancient family lands of Sindia, and your excellency will perceive in the minutes of the conferences, which will be sent as soon as they can be copied, the great anxiety to retain their lands. They have been restored, therefore, under a particular stipulation that no armed men are ever to be kept in them.

“ I did everything in my power to retain the lands of which I took possession upon the capture of Ahmednuggur, as I wished to exclude Sindia entirely from the Deccan; but as the lands are really his family property, to have kept them would have occasioned a personal inconvenience which your excellency would have been desirous to remove, and the restoration of them is accompanied by a stipulation which I hope will prevent the bad consequences attending his having any lands in those countries.”

11. It is, I believe, a fact that General Wellesley was in a position to dictate his own terms; indeed, the following extract from the minutes of conference of the 1st December 1803, at which Mr. Elphinstone was present, shows that Sindia's agents admitted such to be the case:—

“ In the course of the conversation which followed, and, indeed, frequently during this day's conference, the Vakeels declared that Dowlut Rao Sindia was absolutely reduced by necessity to make any peace the British Government chose. This declaration appears also in his own letters.”

12. The provisions of the Treaty of Surjé Anjungaum which affected these Deccan possessions remained in force up to the fall of the Peshwa in 1817. In Article I. of the Treaty of the 22nd November 1805 this was provided for, and again, *after* the breaking out of the war with the Peshwa, in Article XI. of the Treaty of the 5th November 1817, below quoted.



“Such parts of the Treaty of Surjé Anjungaum, and of the Treaty concluded on the 22nd of November 1805, as are not affected by the provisions of the present engagement, remain in full force, and are mutually binding on the contracting parties.”

13. At the conquest of the Deccan, then, Sindia was entitled to hold in it that which he could claim under the Treaty of Surjé Anjungaum, and nothing more.

14. At the end of the war, when the alienated holdings throughout the country became the subject of inquiry and settlement, it was necessary to ascertain the legitimate extent of Sindia's Deccan possessions, and for this purpose endeavours were made to obtain the required information from the Gwalior Durbar, but without success, as reported by the Resident on the 13th January 1820 to the Government of India in the following terms:—

“I have had the honour to receive your letter of the 16th October last. Previously to the receipt of that letter I had made repeated applications to this Durbar for a list of Sindia's villages in the Poona territory, but hitherto the documents which have been handed to me on this subject are so confused and irreconcilable to the Treaty of Surjé Anjungaum that I have been obliged to return them. The Durbar has long promised to give a more accurate statement, but in the mean time I would beg leave to suggest that the Commissioner at Poona should be directed to resume any villages to which the right of this Government may appear doubtful. Unless some measure of this kind is adopted, it is impossible to say how long this Durbar will postpone giving in the statement required.”

15. Consequent upon this report the Government of India requested (Political Secretary's letter of the 9th February 1820) that of Bombay “to resume all villages occupied by Sindia's people to which his right may appear doubtful.”

16. The first thing to be done was to ascertain what Sindia actually held; and this was found to be a matter of no slight difficulty, owing to the intermixture not merely of villages, but of rights in the same villages. The obvious evils arising from this at once attracted attention, and the Bombay Government having pointed out to the Government of India (in Mr. Chief Secretary Warden's letter No. 762 of the 13th May 1820) the necessity of endeavouring to effect a mutual exchange, the Resident at Gwalior was “instructed (Mr. Secretary Metcalfe's letter of the 17th June 1820) to ascertain the wishes of Sindia.”

17. This was the first attempt made to effect a consolidation of Sindia's Deccan possessions. I shall have occasion again to advert to the discussions which from time to time took place on the subject, but it is well at once to record that nothing whatever has been *done* up to the present day, so that this is one of the questions upon which a decision has now to be passed.

18. The next question brought forward had reference to the right of

sovereignty in the territory ceded by the Treaty of Surjé Anjungaum, and the Bombay Government were informed in Mr. Secretary Metcalfe's letter of the 16th September 1820,—

“His Lordship has no hesitation in determining that our authority be introduced into the villages held by Sindia, and not excepted by the Treaty of Surjé Anjungaum, on the same principle on which the measure was adopted with regard to those held by Holkar.”

19. Meanwhile, the Commissioner in the Deccan, Mr. Chaplin, had been instructed to ascertain as far as practicable, and report what Sindia was really entitled to hold in the Deccan under the provisions of the Treaty. This was for some time found a matter of difficulty, which at length, however, Mr. Chaplin reported on the 12th September 1820 to have “fortunately been removed, and in the most satisfactory manner, by the receipt of a list from the Durbar at Gwalior, forwarded to me by Captain Stewart on the 20th February, together with the discovery of three original papers in the handwriting of Bhow Surinjamce, one of the principal Dufurdars of the late Peshwa, which were found in the Dufur here. A comparison of these documents with the Treaty of Surjé Anjungaum, of the result of which I enclose a memorandum (No. 1), has left no doubt in my mind as to the identity of the villages, &c. reserved in Article VIII. of the Treaty.”

20. It is not here necessary to detail the arguments brought forward, which proved that Sindia was entitled to hold only the villages and items of revenue enumerated by Mr. Chaplin, and which I am about to specify. It will suffice at present to remark that Sindia had claimed, on one pretext or another, *everything which he had held before the Treaty*, and this, of course, it was impossible that he could have a right to hold.

21. The reservations specified in Article VIII. of the Treaty Mr. Chaplin showed to consist of the whole or portions of the revenue of 151½ villages, valued in the Peshwas' accounts at Rs. 2,51,372-10-0.

22. It is, however, a remarkable circumstance, that even these 151½ villages, though undoubtedly specified in Article VIII. of the Treaty, did not all fulfil the condition upon which alone they had been inserted. Sindia's Agents had assured General Wellesley (see paragraph 6 of this letter) that they “were not Jagheer, but were Inam.” But such was not the case, as no less than twenty-one of them had never been granted to, nor held by, Sindia in Inam *at any time*, twenty of them having been granted and held in Jagheer (Surinjam), and one having been only held by Sindia in Komavees,—i. e. as manager of the revenue, for which he was responsible to the Peshwa.

23. These twenty-one villages and portions of villages were valued in the accounts of the Peshwas' Government at Rs. 27,512-3-6.

24. The cessions made by Article IV., and not specifically reserved to Sindia by Article VIII. of the Treaty, were shown by Mr. Chaplin to consist of the following items, valued in the Peshwas' accounts at Rs. 3,03,097-7-6.

|  |              |    |   |
|--|--------------|----|---|
| 92½ villages and portions of villages.....   | Rs. 2,09,971 | 13 | 6 |
| The Babtee and Surdeshmookee of the half of the<br>Sewgaum Purguna reserved to Sindia by the<br>Treaty ..... | 30,000       | 0  | 0 |
| Ditto ditto of ditto which had belonged to<br>Holkar .....   | 23,071       | 0  | 0 |
| Ditto ditto of the Purguna of Deypoor .....  | 19,741       | 0  | 0 |
| One-third of the Babtee and Surdeshmookee of<br>the Purguna of Umber .....                                   | 20,313       | 10 | 0 |
| Total....  | Rs. 3,03,097 | 7  | 6 |

25. The Bombay Government, with their Chief Secretary's letter No. 1437 of the 23rd September 1820, forwarded to the Government of India Mr. Chaplin's report and the statements, of which an abstract has been afforded in the preceding four paragraphs, and stated,—

“ The Honorable the Governor in Council concurs in all Mr. Chaplin's opinions, excepting that of our right to resume the Babtee and Surdeshmookee shares of Sewgaum—a right which seems to the Governor in Council to be doubtful.”

26. The Deccan Commissioner was instructed to place himself in communication with the Resident at Sindia's Court on the subject of the right to the Babtee and Surdeshmookee of the Sewgaum Purguna, which was considered questionable, and a long correspondence ensued, which, however, produced no immediate results, but in which Mr. Chaplin upheld his original opinion by arguments which met with the concurrence of the Governments both of India and of Bombay.

27. It was at length determined that Dowlut Rao Sindia should be permitted, *during his lifetime*, to hold all the Deccan villages, and other items of revenue of which he had been found in possession at the fall of the Peshwa, and that *until his death* matters should remain just as they had been found by the British Government. It was, however, observed by the Bombay Government, with reference to this concession (in a letter dated the 7th February 1824, addressed to the Government of India), that it was “ highly important to guard against any act that might convert Sindia's tenure, by courtesy of the British Government, during his life, of a portion of the British territory, into anything like a possession of right and sovereignty.”

28. The Supreme Government, who had already intimated (on the 2nd May 1823) to the Resident at Gwalior the concession which it had been resolved to make during Dowlut Rao Sindia's lifetime, thought it proper to repeat to that officer the caution suggested by the Bombay Government, and accordingly informed him in a letter dated the 5th March 1824,—

“ The Governor General in Council deems it here proper to repeat distinctly the resolution intimated by the terms of paragraph 5 of the instruc-

tions dated 2nd May, that the British Government, under any result of the present negotiations, waives the exercise of its full rights in the villages collusively retained by Sindia south of the Ajunta Range, *during the lifetime of that Chief only.*"

29. So matters remained until the death of Dowlut Rao Sindia on the 21st March 1827. When this occurred, the Government of India determined at once to carry into effect the provisions of the Treaty of Surjé Anjungaum, to resume all that justly belonged to the British Government, and to subject all that might remain to Dowlut Rao Sindia's successor to the full exercise of British sovereignty. These instructions were conveyed by the Deputy Secretary in attendance on the Governor General to the Resident at Gwalior on the 9th April 1827, in the following terms :—

" 10. Whatever turn matters may take at Gwalior subsequent to the late melancholy event, and whatever the extent of influence acquired by you over the new administration, as the natural result of the existing posture of affairs, His Lordship observes that the period has clearly now arrived when we may proceed to exercise our rights of scrutiny and resumption under the Treaty of Surjé Anjungaum in regard to Sindia's Deccanee possessions, on the footing explained in former despatches. The views and arguments detailed in those papers have been confirmed and sanctioned by the concurrence of the Honorable the Court of Directors, who have fully recognised our right as originally urged by the Bombay Government, whilst at the same time they approved the resolution to suspend its enforcement during Sindia's life, from motives of delicacy to the late Maharaja personally. You will, therefore, make no secret of the intentions of your Government to proclaim at once its right to the whole of the villages not specifically excepted from the general cession by Article VIII. of the Treaty of Surjé Anjungaum, and to resume such of the remainder as do not appear to be held in Inam, Jagheer, or otherwise by valid titles, leaving such as are confirmed after the scrutiny to Sindia's successor and his dependents, subject to the full exercise of our sovereignty."

30. Dowlut Rao's death had been communicated (Resident's letter dated the 21st March 1827) to the Bombay Government, who, with their Chief Secretary's letter No. 479 of the 16th April 1827, forwarded to the Resident "copy of a memorandum which has been drawn up by Mr. John Warden, late First Assistant to the Commissioner in the Deccan, regarding Sindia's territories in that quarter. This memorandum not only places the views of Government in the clearest point, but also the present state of the question pending between it and the Court at Gwalior."

The Bombay Government in the same letter stated,—

" The Governor in Council attaches the greatest consequence to the cession of the territories south of the Ajunta Range, or, at all events, the

complete introduction of our authority as relates to the police customs and other points which affect the neighbourhood."

31. Mr. Warden's memorandum described the following items to be those which the British Government could justly claim :—

" 89½ villages claimed by him [His Highness Sindia] under the head of Jambgaum ; shares of revenue enjoyed by the late Dowlut Rao in 116 villages situated in Sewgaum and Deypoor Purgunas, and the villages of Belloree, Chandgaum, Kundeshwur, and Takee,—this includes the Babtee and Surdehmookee of half of Sewgaum, of which we got the Jagheer, and consequent supremacy, from Holkar ; the third of the amount of the Surdehmookee of Umber paid to Sindia by the Nizam, according to a stipulation made at the time the British Government ceded the Purguna to that prince." (The Commissioner to the Chief Secretary at Bombay, January 24th, 1824.)

32. These discussions terminated in the following distinct orders of the Government of India, conveyed to the Resident at Gwalior on the 14th March 1828 :—

" 12. I am, in conclusion, desirous to acquaint you that Government cannot consent to any further unnecessary delay in the enforcement of its just rights over those villages and lands of the Sindia family in the Deccan which were not specifically excepted from the general cession by Article VI. of the Treaty of Surjé Anjungaum. Our fixed intention to act up to the declarations which we have so often made on that head has, of course, been fully made known to the Durbur, and Her Highness the Regent ought, therefore, to be prepared for the measures which must now be adopted, and which should, indeed, have been carried into effect immediately upon the Maharaja's demise. Whenever we have resumed what is our undeniable right, the questions may be afterwards separately considered, of the footing on which the Sindia State is entitled to hold its remaining possessions in the Deccan, and whether we shall attempt to obtain the cession of them to the Honorable Company in exchange for lands of equal value in other quarters, for which purpose Purgunas Bairsia and Eastern Shujawulpoor have been suggested as available.

" 13. Conformably with the above resolution, you will be pleased formally to call on the Durbar to surrender the lands and villages in the Deccan not specifically reserved to the Sindia family by Article VIII. of the Treaty of Surjé Anjungaum, and you will transmit the orders of delivery, when received, to the Government of Bombay, to which authority a copy of this despatch will be furnished. The only point which remains to be decided, previous to the complete execution of the above instructions, is the long agitated question of the extent of exemption included under Article VIII. of the Treaty, and more particularly whether the term *Jambgaum* used in the English copy of the Treaty is to be considered

as designating a single village, or whether, according to the Murathee version, it is to be regarded as a *Turuf*, comprehending many.

"14. The late Commissioner in the Deccan, in his despatch dated 12th September 1820, explained very clearly and satisfactorily the particular villages and the extent of rights which the British Government is entitled to resume south of the Ajunta Range; and in Mr. Chaplin's statement the Supreme Government (vide instructions dated the 2nd May 1823) expressed its concurrence, but added that 'our case could not be considered complete until the Durbar of Gwalior should have had an opportunity of stating what it might have to offer in answer to the strong evidence deducible from Bhow Surinjamee's papers, and of explaining distinctly what specific possessions were ceded by Article IV. of the Treaty of Surjé Anjungaum, and what were restored by Article VIII. of that instrument.' That opportunity has been fully afforded to the Court of Gwalior during the discussions which have taken place regarding the Deccan possessions subsequent to the Maharaja's demise, and the substance of its arguments, in answer to Mr. Chaplin's statement, is exhibited in the Resident's despatch dated 30th July last. To avoid the further prosecution of an apparently endless controversy regarding Jambgaum, Major Stewart recommended that we should compromise the matter by adopting a new principle of settlement, to which he thought the Durbar would easily be reconciled, viz. that of confining our resumptions to all grants made subsequent to the time of the Peshwa Mahadeorao Narayen, or, in other words, subsequently to the accession of the late Dowlut Rao Sindia. The Right Honorable the Governor General on the 20th August last expressed an opinion in favour of the above compromise, but deferred coming to any final determination until the Government of Bombay should have been consulted. In reply, dated the 8th October last, the Governor in Council of Bombay stated strong and decided objections to the admission of the compromise suggested by Major Stewart. The Chief Secretary's despatch (paragraphs 3 and 4) further contains arguments which, in the judgment of the Governor General in Council, demonstrate conclusively that we are entitled to consider Jambgaum as a single village, and not a *Turuf* or *Talooka*, and in this decision the Supreme Government has now to signify its concurrence.

"15. From the foregoing observations it results that in addressing your demand to the Durbar of Gwalior for the cession of that portion of the Deccanee possessions which under the sanction of the home authorities it has been so long determined to resume, as the clear and undoubted right of the British Government by conquest and Treaty, you will be guided by the list and statement contained in Mr. Warden's memorandum transmitted to the Resident by the Chief Secretary to the Government of Bombay on the 16th of April 1827."

33. It will be observed that the Government of India, in the 14th paragraph of the despatch which has just been quoted, overruled a proposal of the

Resident, Major Stewart, to effect a certain compromise, to the admission of which the Bombay Government had "stated strong and decided objections." But there were other objections equally strong, although in all probability unknown to the Governor General, or it is not likely that he would have entertained, even for a moment, the proposal of Major Stewart, which that officer had expressly declined (paragraph 6 of the Resident's despatch of the 30th July 1827) to be based upon the supposition that the reservations to Sindia by the Treaty were "not confined to Inam grants." To me the letter of the Treaty alone appears sufficient to settle this point, for Article VIII. declares,—

"Whereas the Maharaja Dowlutao Sindia has represented that his family have long held *in Inam* certain lands, villages, &c., *therefore* it is agreed that *these* lands and villages shall be restored to him."

34. But supposing this to be inconclusive, it can only be necessary to consult the minutes of conference and the despatch of General Wellesley to the Governor General, to which I have referred in paragraphs 4 to 10 of this letter, and which distinctly prove the reservations to have been earnestly asked for by Sindia's envoys, *only* because "they were Inam," and to have been granted by General Wellesley *only* because they were believed by him to be such.

35. The Resident at Sindia's Court, in the 6th paragraph of his letter to the Government of India of the 10th October 1828, which is below quoted, specified the items which he had called upon the Gwalior Durbar to give up, and orders for the surrender of which he reported having forwarded on the same day to the Government of Bombay :—

"6. In the 15th paragraph of the instructions of the 14th March, I am directed to be guided in my demands by the statement in Mr. Warden's memorandum; but I have confined myself as yet to a demand of the 92 villages, and an intimation that the collection of Babtee and other shares of revenue in each other's territories are in future to cease on both sides, and that after a calculation of the amount the difference will be paid in cash to the Government which now receives most. Four large items of this nature are stated in Mr. Chaplin's list, and I cannot find any explicit final orders of Government regarding them. They are as follows :—

"1st.—The Babtee, &c. of that half of the Purguna of Sewgaum which was confirmed to Sindia by the Treaty. This amounts to Rs. 30,000, and is proposed to be left to Sindia.

"2nd.—The Babtee, &c. of the other half of the Purguna of Sewgaum, which formerly belonged to Holkar, and now belongs to us, amounting to Rs. 23,071. This it is proposed we should resume. These shares of the entire Purguna had been granted to Dowlutao himself in 1798.

"3rd.—The Babtee and Surdeshmookes of the Purguna of Deypoor, amounting to Rs. 19,741, granted to Mahadajee Sindia in 1779.

"4th.—One-third of the Surdeshmookee of the whole Purgana of Umber, amounting to Rs. 20,313-10-0, paid to Sindia by the Nizam, according to a stipulation made at the time the British Government ceded the Purgana to that prince. Granted to Jyajec Sindia in 1753.

"These two items are included in Mr. Warden's memorandum, but I cannot find any mention of them in any part of the correspondence, nor can I find any mention of Kundeshwur. The other three villages are in the list."

36. It will be observed from the above, that the Resident did not carry out the orders of the Government of India, which expressly desired him, in framing his demands, to be guided by Mr. Warden's memorandum prepared from the statements of the Deccan Commissioner, Mr. Chaplin, referred to in the 24th paragraph of this letter. Had these orders been obeyed, everything would have been settled; it is owing to the deviation from them which took place that the demands which the Government of India then, after the fullest discussion and consideration, determined to enforce, and which could have been then enforced with such ease and propriety, have remained in abeyance, and a subject of interminable correspondence, from that day to this, or for about a quarter of a century.

37. Upon the receipt from the Resident of the orders of surrender, the Bombay Government issued the necessary orders of resumption, and reported having done so to the Government of India.

38. It was, however, almost immediately afterwards brought to the notice of the Bombay Government by their officers that a very large portion of the holdings nominally surrendered by Sindia, and the resumption of which the Government had ordered, were held by persons to whom Sindia had alienated them, in some cases before, and in others after the Treaty of Surjé Anjungaum. This was found to be the case with regard to 53 out of the 89½ villages and portions of villages enumerated in the orders of surrender.

39. It was decided that all grants made by Sindia before the Treaty of Surjé Anjungaum should be continued to present holders; that religious and charitable grants should be continued, even although made subsequently to the Treaty; and that all other grants be resumed.

40. Under these orders, the 53 villages were disposed of as follows:—

|  | Value according to the Peshwas' Accounts. |
|--|---|
| 24 villages granted before the Treaty, and continued to present holders..... | Rs. 49,934 11 10½                         |
| 8 ditto continued as being religious and charitable grants .....             | 12,490 0 6                                |
| 2 ditto, decision suspended pending further information .....                | 1,651 15 6                                |
| 19 ditto resumed.....  | 74,820 4 9                                |
| <hr/> 53   | <hr/>                                     |
| Total....  | Rs. 1,38,947 0 7½                         |



41. Shortly after this a question arose as to the jurisdiction to be exercised in Sindia's Deccan possessions, and much discussion ensued, which for the time was terminated by the following declaration by the Government of India, conveyed to the Bombay Government in the 3rd, 4th, and 5th paragraphs of Mr. Secretary Macnaghten's letter of the 28th January 1835:—

“3. It appears, however, to His Excellency in Council, that in the present case the difficulty is entirely one of our own creating. Sindia and Holkar are no doubt entitled to exercise sovereign rights over the territories acquired by their ancestors by conquest in Malwa and elsewhere, but they hold their possessions in the Deccan on very different terms from the above. Their Deccan villages, it is believed, are either hereditary estates enjoyed by their ancestors when they were merely cultivators, or Inams or Jagheers conferred upon them by the Peshwas; and in either case they cannot lay claim to any rights in virtue of these estates which are not enjoyed by other persons holding lands on similar tenures. It is a circumstance familiar to everybody acquainted with Indian history that Mahadajec Sindia and the other members of the great Muratha families settled in Malwa prided themselves upon the hereditary village honours which they retained in the Deccan. The descendants of the fortunate soldiers who had acquired sovereign rights in Malwa were still Patels and Inamdars in their native country, and while they delighted to revive the associations connected with their original character, we never hear of their making any attempts to encroach upon the local jurisdiction of the Peshwas, and arrogate to themselves an independent jurisdiction in the Poona territory.

“4. It is possible that out of regard to the formidable power of their masters the agents who had charge of the Deccan estates of these Chiefs may have had more scope allowed them than ordinary cultivators or holders of rent-free lands; but the powers thus enjoyed, whatever they may have been, were exercised by the sufferance of the Peshwas, and the Chiefs themselves would, it is believed, never have thought of calling in question the sovereign authority of the Peshwas in their own Poona dominion. Since the period of the British conquest, the distinction between the different positions which these Chiefs held in Malwa and in the Deccan has been still more lost sight of, as was to be expected in a country where everything was new to us, and the indulgence with which their local managers are treated has probably been augmented by the disinclination of the Bombay Government to enter into frequent discussions on the subject with the authorities in Bengal, with whom alone Sindia or Holkar have any political intercourse. But even under these circumstances an independent jurisdiction does not appear to have been claimed as a matter of right; and it is stated by Mr. Baber, the Principal Collector of Poona, in his letter to Mr. Marriott's address dated 9th November last, that ‘the Vakeels of Sindia and Holkar distinctly admit that the supreme authority is vested in the British Government,—that is, they both exercise jurisdiction in

ordinary matters, but in great crimes and disorders they refer them to the Sirkar.'

"5. On the whole, His Excellency in Council is satisfied that Sindia and Holkar exercise no jurisdiction in their Deccan villages except what had been tacitly accorded to them by the forbearance of the supreme authority, and which may, therefore, be resumed whenever the public interests call for that measure. As the existing treaties are entirely silent on this point, so far as political relations are concerned, these Chiefs cannot be regarded, in respect to their Deccan villages, in any other character than that of ordinary landholders, and the laws of the Bombay Presidency do not recognise any exception in their favour. The most obvious mode of disposing of the question, therefore, is to allow the existing laws to take their course, and to put no obstacle in the way of the ordinary processes of the courts taking effect in them, in the same way as in any other districts included within our frontier ; and it is accordingly requested that, should the Right Honorable the Governor in Council see no objection, instructions may be issued accordingly. In case any of the parties concerned consider themselves aggrieved, it will be open to them to prove their right, it being understood that the *onus probandi* rests with those who claim extraordinary privileges beyond what are possessed by other persons who hold lands on the same tenure."

42. The instructions quoted in the last paragraph were applicable not merely to His Highness Sindia, but equally to Their Highnesses Holkar and the Gaekwar, and they were applied accordingly, a report of the circumstances being made to the Honorable Court in the 12th paragraph of the political despatch from the Bombay Government No. 51 dated the 25th November 1835.

43. No sooner, however, were these orders acted upon, and a proclamation issued, than the Gwalior Durbar began to protest and remonstrate, and the previous discussions were to a certain extent renewed. The Bombay Government on the 30th July 1836 urged (Political Secretary's letter No. 1391) in the strongest terms the absolute necessity of a strict adherence to the decision already passed and promulgated, and the propriety of doing so was, consequently, admitted by the Government of India, whose instructions were conveyed on the 22nd August 1836 to the Lieutenant Governor of the North-Western Provinces in the following terms :—

"2. The Governor General in Council feels it impossible to resist the force of the reasoning employed by the Bombay Government with regard to the question under discussion ; and with every desire to conform to the wishes of the Gwalior Durbar, it would seem to be impracticable to do so consistently with the ends of good government.

"3. It only remains, therefore, for his Lordship in Council to request that an intimation of the suggestions conveyed in the letter from the Secretary to the Bombay Government dated the 23rd of November last be made

to the Maharaja through the Resident at Gwalior, and that His Highness be requested to nominate the individuals whom he may be desirous of having invested with the authority therein referred to, which authority is, of course, to be exercised conformably with the Regulations of the British Government."

44. I have already explained (paragraph 36 of this letter) that on Dowlut-rao Sindia's death in 1827, the whole of the Deccan possessions, which of right belonged to the British Government, and the resumption of which had been directed by the Government of India, were not resumed; and I have also shown (paragraph 40 of this letter) how a large portion of even that which was at first resumed was subsequently relinquished in favour of persons to whom Sindia had alienated it. Even the remaining portion, however, was soon afterwards claimed on behalf of the Gwalior State, and various propositions were entertained and discussed, to all of which the Bombay Government consistently objected. In their Political Secretary's letter No. 1028, of the 5th June 1838, they observed to the Governor General,—

"35. With reference to Junkojeerao Sindia's present proposition to establish his claims through our Courts to the 89½ resumed Deccan villages, it must first be borne in mind that the late Dowlutrao Sindia was allowed to hold these villages by sufferance during his lifetime, and, accordingly, on his death in 1827, we called on the Durbar of Gwalior to surrender them as the clear and undoubted right of the British Government by conquest and Treaty.

"36. The successor of Dowlutrao, however, endeavoured to evade the demand, and to assert his own right to them. This led to discussions of great length. Junkojeerao Sindia was finally compelled to yield to our demand, and accordingly a Chor Chittee, or written permission of surrender, was issued, and the British authorities in the Deccan took possession of the whole of the disputed villages in the year 1828, since which period they have been under British control.

"37. With regard to the present proposition, the Right Honorable the Governor in Council conceives that assenting to it would be tantamount to admitting that we ourselves doubt the propriety or justice of our former decision in the case at issue,—a decision which was approved by the Supreme Government, and confirmed by the home authorities.

"38. There is, however, a still greater difficulty to be overcome; for the Governor in Council is of opinion that our local courts are not competent to entertain the case under Section V. Regulation XXIX. of 1827."

45. To this the Resident at Sindia's Court opposed the following objections (Resident's letter of the 20th July 1838 to the Secretary with the Governor General):—

"2. The matter under discussion, as it appears to me, is entirely unconnected with the questions relative to 'the resumption' of all grants made

\* to the Sindia family subsequently to the death of the Peshwa Mahadeorao Narayen,' and with the extent of territory accruing to Sindia under Article VIII. of the Treaty of Surjé Aujungaum, according as Jambgaum should be considered a 'town' or 'Turuf.'

"3. Those questions were long ago decided, and the result of that decision was the resumption by us in November 1828 of 89½ villages which had been granted to the Sindia family by former Peshwas.

"4. But it was soon discovered that twelve of these villages had been granted on Inam, and twenty-four of them on Surinjam tenures, by Sindia to individuals, and these were, after investigation, either before our courts of justice or through some other process, restored to the individual claimants.

"5. There remain 53½ villages of the resumed villages in our possession, and to these Maharaja Junkojeerao Sindia now desires to establish his claim, as other individuals have done, either as an Inamdar or Surinjamee Jagheerदार, through our courts, or by any other process which our Government may determine.

"6. It appears to me that we cannot escape from the necessity of attending to such evidence as Sindia may bring forward to establish his claims to these individual rights, except for the reasons stated in my letter of the 3rd of May 1837 to Mr. Macnaghten's address, *i. e.* that Maharaja Junkojeerao is an adopted son, and may not, therefore, be entitled to succeed to individual as to sovereign possessions. The Court or tribunal before which such claims should be investigated it would of course remain for us to determine; but such investigations must be of daily occurrence, and I do not see why the courts which try and determine the claims of other Jagheerदars should not also dispose of those of Maharaja Sindia; but I have not the code noticed in the 38th paragraph of the Bombay letter to refer to."

46. The Bombay Government, to whom the Resident's objections were referred (with a letter from the Secretary with the Governor General, dated the 2nd August 1838), submitted to the Government of India, in their Political Secretary's letter No. 1683 of the 28th July 1840 (the 7th, 8th, and 9th paragraphs of which are below transcribed), their opinion that the claims put forward by Sindia could not be admitted, or even entertained:—

"7. In his further letter to the Government of India, dated the 28th July 1838, Colonel Sutherland labours under an error in assuming that these villages, or any of them, were restored to the individual claimants 'after an investigation before our courts of justice, or through some other process,' the restoration of the villages in question being nothing more nor less than an act of pure liberality on the part of Government.

"8. The supposition that the restoration of the 34 villages was obtained in the manner assumed by Colonel Sutherland appears to this Government

to have given rise to the claim advanced by Sindia for the restitution of the remaining villages ; His Highness very naturally arguing that if our courts of law have adjudged the restoration of certain of the resumed villages held under Inam tenure, they will also admit his claim to the villages which he can prove to have been held by his family under the same tenure.

“ 9. Under the circumstances above mentioned, and those alluded to more at length in the enclosures to this letter, the Honorable the Governor in Council is desirous of being informed whether the Right Honorable the Governor General of India in Council concurs in the view taken by this Government of Sindia's claim to these villages, namely that the question must be decided with reference only to the terms of the Treaty of Surjé Anjungaum.”

47. The Government of India, on the 26th July 1841, signified their concurrence in the following terms (Political Secretary's letter No. 1988):—

“ 2. These villages were among the possessions of Dowlutao Sindia, which he ceded to the British Government by the Treaty of Surjé Anjungaum ; he was allowed to retain them during his lifetime ; they were resumed after his death. It was then ascertained that several had been alienated both before and after the Treaty of Surjé Anjungaum. Those alienated before the Treaty were all relinquished in favour of their then possessors, and such as had been alienated for charitable and religious purposes after the Treaty were also relinquished, and the remainder were considered a lapse to the British Government.

“ 3. It would appear that the consideration evinced by the British Government to the grants of the Sindia family, in upholding the alienations of a considerable portion of these villages which it might have cancelled, has led to a misconception at the Court of Gwalior of the grounds and motives of these concessions, and to a belief that it could substantiate its own claims to recover possessions because the claims of certain parties who held under Sindia's grants had been admitted.

“ 4. But there is no ground whatever for such assumption ; and as no possible benefit could be derived from allowing Sindia's agent to agitate his claims to recover these villages before the fiscal or judicial authorities in the Deccan, the Resident at Gwalior will be instructed to explain to His Highness the whole particulars of the case, as exhibited in these papers, when, no doubt, he will desist from the further prosecution of his claims for the restoration of the villages.”

48. On the 20th June 1842 the Bombay Government, in their Political Secretary's letter No. 1918, again addressed the Government of India on the subject of the large Babbtee and Surdeshmookkee Umuls which ought to have been resumed at Dowlutao Sindia's death in 1827, and of one or two small items to which it is not necessary that I should here further advert, as they must, I apprehend, be disposed of by the local Government under such

general rules and instructions as may now be furnished by the Government of India regarding Sindia's claims in the Deccan generally.

49. Much correspondence again took place, which ended in the following distinct declaration by the Government of India, conveyed to the Governor General's Agent for Sindia's Dominions in Mr. Secretary Currie's letter No. 1759 of the 20th July 1844, copy of which was forwarded to the Bombay Government with Mr. Secretary Currie's letter No. 1760 of the same date :—

“ 3. The Governor General in Council is of opinion that the adjustment of this question, so often put off by Sindia on one pretext or other, cannot be longer delayed, and His Honour in Council directs that you move the Durbar to take immediate measures for the transfer of these lands, held by Sindia contrary to the Treaty above referred to, the surrender of which has been constantly demanded by us and promised by the Durbar.

“ 4. The Governor General in Council would be sorry to proceed to the extreme measure proposed by the Bombay Government in their despatch dated 31st December 1842, No. 3950, but he feels that this must be done if the Durbar persist in withholding from us the possession of these lands.

“ 5. The Governor General in Council expects, therefore, that the Durbar will at once give up, on your requisition made in communication with the Bombay Government, those estates held by Sindia beyond the Ajunta Range not expressly excepted by the provisions of the Treaty, and not specifically exempted from resumption by subsequent orders of this Government; and should they fail to do this, and continue to evince a disposition to evade compliance with our just demand, His Honour in Council will be compelled to adopt the measure of attaching all the lands within the geographical limits described in the Treaty, leaving the *onus* of proving the right of exemption to Sindia.

“ 6. You are requested to enter upon this question with the Durbar immediately, in communication with the Bombay Government, and report monthly, for the information of the Governor General in Council, the progress made in the transfer of these lands.”

50. Consequent upon this decision, orders of surrender were obtained from the Gwalior Durbar, and forwarded by the Governor General's Agent to the Government of India on the 2nd October 1845; but these orders were accompanied by a protest, containing a series of objections and several requests, which from that day to this have been the subject of correspondence, but regarding which no final decision has been passed.

51. The Honorable Court of Directors, on learning that these orders of surrender had at length been obtained, expressed themselves as follows, in the 15th paragraph of their political despatch No. 26 of the 20th October 1847 :—

“ After having for many years abused the forbearance shown by you on the subject of these possessions, Sindia's Government has at last issued

orders for surrendering the lands and Huks held by it contrary to the provisions of the Treaty of Surjé Anjungaum. It rests with the Government of India to determine whether to allow the Durbar to remain in possession of the Inam lands, to the value of Rs. 1,527, to which it attached particular importance, as having been granted by the Peshwa to Sindia in the capacity of Patel."

52. In 1851 the Inam Commissioner, Mr. Hart, was desired to submit a complete report upon the long discussed, though still (practically) unsettled question; and he, accordingly, on the 11th December 1852 submitted a letter from his Assistant, Lieutenant Etheridge, together with his own opinion and recommendation, which for all present purposes may be described as—

1st (paragraph 20 of Mr. Hart's letter).—That *everything*, whether Inam or otherwise, "included in the reservations of the Treaty, whether owing to misrepresentation or not, should be regarded as partaking of the guarantee of the Treaty," *subject, however*, to inquiry into title, and to eventual continuance or otherwise according to the result of such inquiry.

2nd (paragraphs 7 to 10 of Mr. Hart's report).—That all Sindia's "claims for Wutun Inams and private grants of a petty nature" should, although not specifically reserved to him by the Treaty, be recognised under the rules applicable to such claims generally.

3rd.—That all claims to other property not specifically reserved to Sindia by the Treaty should be disallowed.

53. Mr. Hart's report was forwarded to the Government of India by that of Bombay, whose opinion was thus expressed in the 5th paragraph of their Revenue Secretary's letter No. 1497 of the 10th March 1853 :—

"5. Government approve, in so far as they can at present judge, of the principles for a general adjudication of Sindia's title which are submitted in paragraphs 5 to 28 of Mr. Hart's letter of 11th December 1852, No. 1432, but they may see reason to modify this opinion as regards particular cases coming before them in appeal."

54. These papers were forwarded by the Government of India to the Governor General's Agent for Sindia's Dominions, Mr. Bushby, (with the Foreign Secretary's letter No. 2008 of the 29th April 1853), whose opinion was submitted in his letter No. 52 of the 12th May 1853, a copy of which having been transmitted to the Bombay Government with the Foreign Secretary's letter No. 2836 of the 24th June 1853, for consideration "of the points therein discussed by Mr. Bushby," has now been referred to the Inam Commission. (Resolution in the Revenue Department, No. 4396 of the 30th July 1853.)

55. It will, perhaps, be the most convenient plan to discuss the several points to which Mr. Bushby has adverted in the order in which they have been noticed by him, commencing with the 3rd paragraph of his letter, in which it is stated,—

"The reservation at the end of Article III., by which the Maharaja cedes

to the Honorable Company and their allies, in perpetual sovereignty, the fort of Ahmednuggur and territory depending thereon, '*excepting those lands which it is agreed by Article VIII. of this Treaty that the Maharaja is to retain,*' refers to villages in which he had no rights of sovereignty."

But the lands ceded by Article III., and those reserved to Sindia by Article VIII., were *all* grants by the Peshwa, and much of the Deccan territory which Sindia ceded by Article III. had been acquired in *precisely the same manner*, and was then *held on precisely the same tenure* as the portion which by Article VIII. he was allowed to retain. Whatever right of sovereignty, therefore, existed in the one, must, apparently, have existed in the other; or, if not, how could Sindia have in the first instance ceded *everything* to the British Government "in perpetual sovereignty"? Indeed, Mr. Bushby in a subsequent (the 11th) paragraph appears to adopt this view of the question when he says,—

"We allowed Sindia to cede them to us as sovereign possessor, and in virtue of the same power we ceded a portion of them back."

56. In his 5th paragraph Mr. Bushby states,—

"We were treating with Dowlut Rao Sindia not as a Patel of a village, but as Chief or prince of a principality. He ceded his sovereignty, and we engaged to respect his family or personal interests in certain lands, villages, &c. in the territories of the Peshwa Rao Pundit Pradhan."

That General Wellesley treated with Sindia as an independent prince he has himself recorded (see paragraph 66 of this letter); and it seems equally clear that Sindia relinquished all sovereign rights in the territory which by Article VIII. of the Treaty he was allowed to retain. Such rights, indeed, he had never possessed *de jure*, for the whole of the lands were from first to last nominally held from the Peshwa; but, apart from this, it is certain that even the *de facto* right was distinctly relinquished when the Treaty was negotiated, as the minutes of conference of the 26th December 1803 record that Sindia was allowed to retain certain Inam lands in Hindoostan, which were subsequently specified in Article VII. of the Treaty, and referring to which "Major General Wellesley replied that these also should remain to him in Inam, *under the Company's protection*,"\* on the same condition as the Inam lands about Ahmednuggur."

57. In the same (the 5th) paragraph of Mr. Bushby's letter it is stated that the villages, &c. reserved to Sindia by the Treaty "are generally described in Article VIII. but not with the precision which would have been used if *thereby* it had been intended to grant either more or less than the family of Sindia then possessed. For example, we do not find in the list the native village of the Prince Patel." And in the next (the 6th) paragraph Mr. Bushby expresses an opinion that "it must, therefore, be inferred that only things were relinquished

\* *Italicised* by Captain Cowper.



and reserved by the Treaty possessed by Sindia either by virtue of conquest or by grants from the Peshwa, not that the Treaty was to exclude Sindia from all descriptions of family property, or personal property in land that he enjoyed, other than in the villages and Purgunas particularised in Article VIII." But I am unable to perceive any valid grounds upon which it can be argued that Article VIII. of the Treaty was intended to describe "generally," and not specifically, the lands which Sindia was allowed to retain; for, as I have already explained (see paragraph 55 of this letter), much of that which was finally ceded by Article III. was held *on exactly the same tenure* as that which was reserved or restored to Sindia by Article VIII., and if, therefore, it is once admitted that the villages which were restored to Sindia are not those specified in Article VIII., *and those only*, I am not able to perceive where the line is to be, or can be drawn, or why, supposing Sindia can justly claim *any* of the villages, &c. held by him in the Deccan before the Treaty, but not specified in Article VIII., he cannot with equal justice claim them all.

58. This argument has been, however, long ago thoroughly discussed and overruled by the Government of India. It was during this discussion that the Government of Bombay, of which Mr. Elphinstone (who wrote from personal knowledge of the circumstances under which the Treaty had been negotiated and signed, and who at the time to which I allude—1827—was one of the few persons remaining in India who possessed that knowledge) was then the head, recorded the following opinion (letter in Political Department to the Government of India, No. 1259 of the 8th October 1827):—

"It now only remains to see whether the fact of the villages now claimed being ancient possessions in any way strengthens the claim. It appears to the Governor in Council that no argument can be founded on the circumstance. Article VIII. states that Sindia was desirous of reserving 'certain lands and villages that had been long in his family,' but it by no means follows that he was allowed to retain *all* the lands which were in that predicament. Why he selected some possessions of later date rather than some of older standing it may not be easy to explain; but a conjecture may be formed from an inspection of the list No. 2 [see paragraphs 38 to 40 of this letter] in Mr. Chaplin's letter above quoted, by which it appears that all the old possessions which he held by undoubted tenures had been granted to individuals about his Court, and it is probable that he was willing that the loss by his cessions should fall in part on those individuals rather than entirely on his own treasury."

59. I am obliged to dissent altogether from the opinion expressed in Mr. Bushby's 7th paragraph, in which it is stated,—

"We seem to have no difficulty now in determining what was to be restored according to Article VIII., though we may not choose to recover what may have been already lost by a wrong interpretation of the Treaty that has received the deliberate sanction of our Government, or to open

new questions with the Durbar, or to suggest new principles of settlement where we have virtually by our own past decisions or our own past conduct declared our sense of the compact concluded."

I should hesitate to question the correctness of this view of the case on any but the strongest grounds, which, however, are, it seems to me, to be found in the record of all that has taken place regarding these disputed holdings from the conquest of the Deccan up to the present day. The claims of the British Government were preferred in 1822 by the Commissioner in the Deccan, and were after some years' discussion declared to be valid by the Government of India, who, however, with the concurrence of the Honorable Court of Directors, permitted Dowlutao Sindia to continue to hold *during his lifetime* the whole of the Deccan possessions held by him at the close of the Peshwas' rule; but the Bombay Government then pointed out (see paragraph 27 of this letter) that it was "highly important to guard against any act that might convert Sindia's tenure by courtesy of the British Government, during his life, of a portion of the British territory, into anything like a possession of rights and sovereignty." And the Government of India subsequently informed the Resident at Sindia's Court that the British Government waived "the exercise of its full rights in the villages collusively retained by Sindia south of the Ajunta Range *during the lifetime of that Chief only.*" (See paragraph 28 of this letter.)

60. On Dowlutao Sindia's death in 1827, the villages and other items of revenue which had been collusively retained were at once claimed as the clear and undoubted "right of the British Government by conquest and Treaty" (Government of India to Resident at Gwalior, dated the 14th March 1828); but the Resident did not fully carry out the instructions of the Supreme Government; orders of surrender were obtained by him from the Gwalior Durbar for some of the items named, but not for others, and it is these latter which have from that day to this been the subject of discussion, during which, however, a second and peremptory demand was made on the Durbar in 1844, when the Government of India instructed the Resident,—

"The Governor General in Council is of opinion that the adjustment of this question, so often put off by Sindia on one pretext or other, cannot be longer delayed, and His Honour in Council directs that you move the Durbar to take immediate measures for the transfer of those lands held by Sindia contrary to the Treaty above referred to, the surrender of which has been constantly demanded by us and promised by the Durbar."

And the Resident was further informed, that in the event of non-compliance on the part of the Durbar, the Government of India would "be compelled to adopt the measure of attaching all the lands within the geographical limits described in the Treaty, leaving the *onus* of proving the right of exemption to Sindia." After this, orders of surrender were issued by the Durbar, but were

accompanied by a protest, containing a series of objections and several requests, which have up to the present time formed the subject of correspondence in every quarter, and which are now before the Government for final decision.

61. Lastly, I would refer to the despatch of the Honorable Court of Directors dated the 20th October 1847 (quoted in paragraph 51 of this letter), in which they thus alluded to the subject :—

“ After having for many years abused the forbearance shown by you on the subject of these possessions, Sindia’s Government has at last issued orders for surrendering the lands and Huks held by it contrary to the provisions of the Treaty of Surjé Anjungaum.”

62. Surely, under the circumstances which I have explained in the last three paragraphs (59 to 61), it cannot be argued, as a reason for *now* relinquishing “ the right of the British Government by conquest and Treaty,” that that right has not been during the last five-and-thirty years sufficiently often, and with sufficient distinctness asserted ; indeed, short of *enforcing* it, I cannot perceive what more *could* have been done.

63. In his 9th paragraph, Mr. Bushby observes “ that in the Partition Treaties (1804) with His Highness the Soubhadar of the Deccan and His Highness the Peshwa, the cessions referred to are termed cessions and possessions ‘ in perpetual sovereignty’ ; and in neither the Treaty with the Soubhadar nor in that with the Peshwa is there one word mentioned of the rights reserved to Sindia by Article III. or Article VIII. of the Treaty of Surjé Anjungaum.” But although such is undoubtedly the case, it cannot, it seems to me, be accepted as confirmatory of Mr. Bushby’s opinion that by the Treaty “ Dowlut Rao Sindia was only transferring his rights of sovereignty” ; for the explanation of the omission of all mention in the Partition Treaties of the rights reserved to Sindia by Articles III. and VIII. of the Treaty of Surjé Anjungaum is, I think, to be found elsewhere, in the distinct guarantee of General Wellesley, to which I have already alluded (see paragraph 56 of this letter), that the reserved rights were to remain to Sindia “ *under the Company’s protection.*” \* Such being the case, it seems clear that no sovereignty of either the Peshwa or the Nizam *could* have been recognised with regard to these holdings in the Partition Treaties.

64. “ This circumstance,”—that is to say the omission, in the Partition Treaties ceding certain territory to the Peshwa and the Nizam in perpetual sovereignty, of all mention of the rights reserved to Sindia by Article VIII. of the Treaty of Surjé Anjungaum,—“ This circumstance,” Mr. Bushby in the same (the 9th) paragraph says, “ may, I think, further indicate as well what we meant to do as what we did not mean to do by Article VIII. : we simply guaranteed the restitution of the properties enumerated in Article VIII., without prejudice to any other grants or possessions which Dowlut Rao Sindia might hold in Jagheer, Surinjam, or other tenure, or any rights which he might have

as a village Patel, or any perquisites which he might enjoy from the former revenues of the Muratha Empire, such as the Babtees and Surdeshmookees, to which you allude in paragraph 13 of your letter." Should Government concur in the opinion I have submitted in the last (the 63rd) paragraph, it follows that no argument can be founded on non-mention of these reserved rights in the Partition Treaties; but however this may be, it can never, I imagine, admit of the deduction that the Treaty left Sindia *everything which he had ever held in the Deccan*, for to this Mr. Bushby's proposition, if I correctly understand it, amounts. It is expressly mentioned in the minutes of conference that Sindia's Vakeels, in pressing upon General Wellesley the request that the lands afterwards specified in Article VIII. of the Treaty might be reserved to their master, urged that they "were not Jagheer, but were Inam"; and General Wellesley subsequently described them to the Governor General as Inam, or "family property," which the villages held by Sindia in Surinjam or Jagheer assuredly were not. Indeed, admitting that the Treaty not only guaranteed to Sindia the villages specified in Article VIII., but also left all other grants or possessions which when the Treaty was negotiated he held "in the Deccan, in Jagheer, Surinjam, or other tenure," what is to be done with regard to the holdings already taken possession of "as the clear and undoubted right of the British Government by conquest and Treaty," and held on some one of the tenures specified by Mr. Bushby?

65. The above seems to me conclusively to prove that Article VIII. of the Treaty was intended to restore nothing but *Inam* property. The wording of the Article, too, is very distinct, and describes the lands restored to be those which Sindia had represented "that his family have long held *in Inam*."\* These facts must be, I think, fatal to any claim put forward to any Surinjam holding; but the Babtee and Surdeshmookkee of Purguna Sewgaum, alluded to by Mr. Bushby, were not only granted in Surinjam, but were granted *as late as A. D. 1797-98*, so that they certainly cannot correctly be described as having been in 1803 "long held" by the family of Sindia. The Babtee and Surdeshmookkee must be among the items which the Vakeels did *not* include in their demands, so emphatically described as extending only to villages which "were not Jagheer, but were Inam."

66. For the reasons already afforded I have arrived at the opinion expressed by Mr. Bushby in his 11th paragraph, that the rights reserved to Sindia by Article VIII. of the Treaty "can alone be disposed of by means of negotiation between the British Government and Sindia"; and I am under the impression that Mr. Hart would have adopted this view of the subject had he, when formerly addressing the Government, been in possession of the copies of the minutes of conference for which he applied as soon as he became aware of their existence, for at one of these conferences the Vakeels of Sindia, referring to General Wellesley's proposal that Sindia should not proceed to Poona to visit the Peshwa there, said that,—

\* *Italicised by Captain Cowper.*

"It would be difficult, if not impossible, to make this arrangement without the consent of the Peshwa, as Sindia was His Highness's servant.

"Major General Wellesley replied that he would answer for the Peshwa's consent; but he observed that he had hitherto talked to them under the notion that Sindia was the head of a State; and if, instead of being considered in that light, he wished to be considered as the Peshwa's servant, the case was so much altered as to render a different system necessary,—and he hinted that in that case the Maharaja was now in rebellion.

"The Vakeels gave up this point."

67. Added to the above is the fact pointed out by Mr. Bushby, that Sindia ceded all these holdings to the British Government "as sovereign possessor." The whole of the Deccan possessions were ceded by Article VIII. "in perpetual sovereignty," and out of these cessions the Maharaja was allowed to retain those specified in Article VIII., "under the Company's protection," and on the condition that no troops should ever be introduced into them.

68. Under these circumstances, then, it seems that Sindia is entitled to hold whatever may have been restored to him by Article VIII. of the Treaty without any question or inquiry, his title being that derived from the Treaty.

69. There is, however, a question in connection with this portion of the subject which I should notice, that it may now be finally set at rest. Article VIII. of the Treaty specifies certain villages to be restored to Sindia, and describes them as thus restored because they were represented to have been long held *in Inam*. The minutes of conference and General Wellesley's letter of the 30th December 1803 (see paragraph 10 of this letter), too, clearly prove that he consented to the restoration of nothing but Inam property, and that he yielded to the earnest solicitation of the Vakeels only upon their solemnly assuring him that the lands in question "were not Jagheer, but were Inam." But it is, nevertheless, a fact, that out of the lands specified in Article VIII. twenty-one villages, valued (see paragraphs 22 and 23 of this letter) in the Peshwas' accounts at Rs. 27,512-3-6, *were Jagheer*, and had never been held by Sindia on any other tenure. Whether, under the distinctly recorded circumstances of the case, these Jagheer villages partake or not of the guarantee and restoration accorded to Inams, *and to Inams alone*, has now to be decided. An opinion has been expressed that it is now too late to correct errors in the Treaty; and it certainly appears only reasonable that the lapse of so many years should be held to bar all inquiry or discussion on this head; but it seems, notwithstanding, a matter for the consideration of the Government, whether such direct misrepresentation as this can correctly be described as "error"; and however this may be decided, there yet must remain the broad fact that Sindia is at this time the holder of these twenty-one villages *in excess* of those which it was intended to restore to him.

70. In the third section of his 11th paragraph Mr. Bushby states,—

"From the condition of slipper-holders, the family had risen to sovereignty, and, as they rose, probably retained in their own hands lands granted for military service, without performing the duties attached thereto. The Peshwa and the British Government, in Treaty with Sindia, allowed him to dispose of these lands, as well as Ahmednuggur, Broach, and others, as sovereign possessions; and as we gave them back in this wise, the question as to the original tenures on which they were held appears to me to be now inadmissible."

This passage appears to me correctly to describe the condition of the *Inams* reserved to Sindia by Article VIII. of the Treaty, but certainly not any lands granted for military service,—i. e. *Surinjam* holdings. These latter were, it is true, by Article III. of the Treaty, ceded to the British Government by Sindia as sovereign possessor, but they were never restored to him: on the contrary, their retention by the British Government was distinctly indicated. Of all the territory ceded by Article III., *only* certain villages specified in Article VIII. as those represented to belong to Sindia *in Inam* were restored. Indeed, even the Vakeels, when pressing their claims upon General Wellesley, never attempted to obtain the restoration of any Jagheer lands,—they urged that the only lands for which they asked "were not Jagheer, but were Inam"; and General Wellesley's subsequent despatch of the 30th December 1803 to the Governor General clearly shows that he had not the slightest intention of restoring anything but Inam property. It was, I believe, one of the objects of the Treaty to sever the connection between the Peshwa and Sindia; and if so, it is not difficult to understand that the cession of all Deccan lands granted to Sindia for military service to be rendered to the Peshwa should have been insisted on. Even the *Inams* which were restored to Sindia he was to hold, not, as before, nominally from the Peshwa, but "under the Company's protection."

71. Mr. Bushby in his 14th paragraph advocates the relinquishment of the claim of the British Government to the Bantees and Surdeshmookees granted to Sindia in *Surinjam*, and granted for the most part only three or four years before the date of the Treaty; and in discussing this subject reference is made to the Umber Purgana, in the Nizam's territory, regarding which Mr. Bushby observes,—“Only last year Mr. Commissioner Ellis awarded to Sindia an annual compensation for his Surdeshmookee Huks in the said Purgana, payable by the Nizam.” I have been furnished with copies of Mr. Ellis's proceedings, and am inclined to believe that he passed that decision in ignorance of several of the most important recorded facts of the case. The Deccan Commissioner, Mr. Chaplin, who discussed with the Resident at the Nizam's Court the whole of the details of the Treaty of 1822, and who must, therefore, be supposed to have been accurately informed on the subject, on the 24th January 1824 pointed out to the Secretary Government,—

“The statement now relates principally to territory ceded to the Nizam by the Treaty of the 31st December 1822. It seems only necessary

to remark that the sum entered as not included in the Treaty for the Babtee and Surdeshmooke of the District of Umber did not form a portion of that cession, but was specifically excepted. On the decease of Dowlut Rao Sindia it will, therefore, revert to the British Government."

72. On the death of Dowlut Rao Sindia the demand was made accordingly, the last item in the memorandum (see paragraph 31 of this letter) drawn up on that occasion by Mr J. Warden, and showing the possessions belonging to the British Government, and which were then to be claimed, being described as "the third of the amount of the Surdeshmooke of Umber, paid to Sindia by the Nizam according to a stipulation made at the time the British Government ceded the Purgana to that prince." A copy of this memorandum was forwarded on the 17th May 1827 to the Supreme Government, who desired the Resident at Gwalior to demand the surrender of the items named therein: but the Resident did not carry out these instructions,—he required more information regarding the Umber Surdeshmooke, and regarding a number of other items, and the consequence has been their retention by Sindia to this day, correspondence having during the interval been carried on without intermission.

73. I do not attempt to inquire here into the right of the British Government to this item (the Umber Surdeshmooke), because I apprehend that the first thing to be done is to ascertain whether the Government of India deem it advisable to re-open the question, there being certainly a strong *prima facie* case in favour of the right of the British Government.

74. There is one more point to which I must allude, and which, though not specially noticed in the correspondence which has already been submitted to the Government of India, is most intimately connected with the general question upon which a decision is now about to be passed,—I allude to the shares which the British Government, as the Peshwa's successor, holds in villages reserved to Sindia by the Treaty of Surjé Anjungaum, and which have from the first (1817) been productive of little save inconvenience, discussion, and loss. It has been found impossible to obtain from Sindia's managers anything like the sums properly payable, without exercising a degree of interference and scrutiny which it has always been the object to avoid, and to which objection has always been raised on Sindia's part. The subject is one which has been so often and so forcibly stated by the Government of Bombay that I advert to it merely to suggest a remedy. It occurs to me that to effect an exchange of these rights for a certain number of entire villages is the only method by which the desired object is at all likely to be attained, and that such an exchange can only be speedily effected by both parties consenting to adopt the valuation which the Peshwas' records assign to the several items. Supposing the Government to approve of so much of the proposal, I would allow Sindia to make over to the British Government any villages he pleases, provided only that they are found to be of the required value according to the accounts of the late Government. I do not suppose that the situation of such

villages could be a matter of any real consequence, as the whole district is in every respect subject to British criminal jurisdiction; whereas, all past experience shows that to attempt to obtain any accounts of present actual value would be either to indefinitely postpone the exchange, or to effect it at a great and certain loss.

75. In the event of this arrangement being sanctioned by the Government of India, and agreed to by Sindia, it would only remain to intimate to the Gwalior Durbar the value of the cessions to be made by the British Government, accompanied by a valuation list of all the villages in the Deccan, the Jagheer Umul of which Sindia at present holds, and from which the Durbar would merely have to select those villages which they might prefer to give in exchange.

76. The points upon which the decision of the Government of India appears to be required are,—

1st (paragraph 69 of this letter).—Whether, under Article VIII. of the Treaty, which declares,—“Whereas, the Maharaja Dowlut Rao Sindia has represented that his family have long held in Inam certain lands, villages, &c. in the territories of Rao Pundit Prudhan, \* \* \* It is agreed that these lands and villages shall be restored to him”; and under the distinct declaration of the Vakeels to General Wellesley that these villages “were not Jagheer, but were Inam”—the twenty-one Jagheer and Komavees villages specified in Article VIII., and valued in the Peshwas’ accounts at Rs. 27,512-3-6, are to be retained by Sindia as coming within the guarantee of the Treaty?

2nd (paragraphs 71 to 73 of this letter).—Whether Mr. Ellis’s decision regarding the Surdeshmookee of the Umber Purgana, confirmed by the Government of India, is subject to revision, should it be proved to have been based on incomplete information, and should the Surdeshmookee be found to have been specially reserved to the British Government out of the cessions made to the Nizam?

3rd (paragraphs 57 to 65 of this letter).—Whether the several items still with Sindia *not* specified in Article VIII. of the Treaty, and granted to and held by Sindia, *not* in Inam but in Jagheer, are now to revert to the British Government, as it was specially declared they were to do on Dowlut Rao Sindia’s death twenty-five years ago?

4th (paragraphs 66 to 68 of this letter).—Whether the villages, &c. which Sindia may be declared entitled to retain under Article VIII. of the Treaty are to be held subject to adjudication of Inam title under Act XI. of 1852, and if not, on what tenure are they to be held, and entered as held, in the public accounts?

I have the honour to be, &c.

(Signed) T. A. COWPER, Captain,  
Assistant Inam Commissioner.



No. 4787 of 1855.

## REVENUE DEPARTMENT.

From H. YOUNG, Esq.,

Offg. Chief Secretary to the Government of Bombay,

To C. BEADON, Esq.,

Secretary to the Government of India.

*Dated 15th November 1855.*

SIR,—With reference to the correspondence ending with Mr. Officiating Under-Secretary Dalrymple's letter No. 4857 dated 15th November 1853, I am directed to submit, for the consideration of the Government of India, the following abstract of a report from Captain Cowper, late Assistant to the Inam Commissioner, and at present Inam Commissioner Northern Division, relative to Sindia's title to certain possessions in the Deccan under the Treaty of 1803, commonly called "the Treaty of Surje Anjungaum."

2. Captain Cowper, after detailing the whole proceedings which have taken place since 1803, and which have formed the subject of several references from this Government to the Supreme Government on the subject of Sindia's possessions in the Deccan, draws attention to the distinctly recorded expression of opinion by the Honorable Court as communicated in the following paragraph of their political despatch No. 26 of 20th October 1847 :—

"15. After having for many years abused the forbearance shown by you on the subject of these possessions, Sindia's Government has at last issued orders for surrendering the lands and Huks held by it contrary to the provisions of the Treaty of Surjé Anjungaum. It rests with the Government of India to determine whether to allow the Durbar to remain in possession of the Inam lands to the value of Rs. 1,527, to which it attached particular importance, as having been granted by the Peshwa to Sindia in the capacity of Patel."

See correspondence ending with letter from Governor General's Agent to the Government of India, dated 2nd October 1845.

3. Captain Cowper then proceeds to discuss the several points to which the Agent to the Governor General for the affairs of Sindia's Dominions adverts in his letter No. 52 dated the 12th May 1853, in the order in which they have been noticed by him.

4. Captain Cowper observes,—[here follow paragraphs 55 to 74\* of Captain Cowper's Report].

5. Captain Cowper then notices the following points, upon which the decision of the Government of India is required :—

"1st.—Whether, under Article VIII. of the Treaty, which declares,—  
 'Whereas, the Maharaja Dowlut Rao Sindia has represented that his family

\* Vide pages 66 to 75.

have long held in Inam certain lands, villages, &c. in the territories of Rao Pundit Pradhan, \* \* \* It is agreed that these lands and villages shall be restored to him'; and under the distinct declaration of the Vakeels to General Wellesley that these villages 'were not Jagheer, but were Inam'—the twenty-one Jagheer and Komavees villages specified in Article VIII., and valued in the Peshwas' accounts at Rs. 27,512-3-6, are to be retained by Sindia as coming within the guarantee of the Treaty?

"2nd.—Whether Mr. Ellis's decision regarding the Surdeshmookee of the Umber Purgana, confirmed by the Government of India, is subject to revision, should it be proved to have been based on incomplete information, and should the Surdeshmookee be found to have been specially reserved to the British Government out of the cessions made to the Nizam?

"3rd.—Whether the several items still with Sindia not specified in Article VIII. of the Treaty, and granted to and held by Sindia, not in Inam but in Jagheer, are now to revert to the British Government, as it was specially declared they were to do on Dowlut Rao Sindia's death twenty-five years ago?

"4th.—Whether the villages, &c. which Sindia may be declared entitled to retain under Article VIII. of the Treaty are to be held subject to adjudication of Inam title under Act XI. of 1852, and if not, on what tenure are they to be held, and entered as held, in the public accounts?"

6. Mr. Bushby's arguments, I am desired to state, have been in the judgment of the Right Honorable the Governor in Council fully met, and the requisite explanations afforded by Captain Cowper in paragraphs 55 to 73 of his report, of which copies are given in paragraph 4 of this letter.

7. I am further instructed to request the attention of the Supreme Government to the distinctly recorded expression of opinion by the Honorable Court of Directors noticed in paragraph 2 of this letter, as also to the suggestion made in paragraph 74 of Captain Cowper's report for exchanging, for a certain number of entire villages, the shares which the British Government, as successors to the Peshwa, hold in some villages reserved to Sindia. His Lordship in Council ventures to suggest that if Sindia would cede the whole of his territory south of the Vindhya Range for an equivalent in Hindoostan, the British Government would do well to make the transfer. They would get Boorhanpoor, on the Taptee; many of the places where iron is found on the banks of the Nerbudda are also included in Sindia's territories south of the Vindhya Range, and these places will incontestably acquire additional value when the railway is extended to Jubbulpoor. The late Colonel Malcolm, when on his way from Gwalior to Baroda, informed the Right Honorable the President that such an exchange might possibly be effected, if the lapsed territory of Jhansie would afford a sufficient equivalent for Sindia's possessions in the Deccan. The Gwalior Durbar has hitherto been unwilling to part with these possessions, but Colonel Malcolm thought that the offer of the districts in the immediate neighbourhood of the capital, in exchange for them, would outweigh their objections.

8. The opinion of this Government on the points submitted in paragraph 5 of this letter is,—

1st.—That it is shown that certain villages, continued to Sindia under Article VIII. of the Treaty, were not held by that Prince on Inam tenure, the assertion of which tenure at the time by his Vakeels appears to have been the sole ground for their continuance to him; but that whether any further proceedings on this point be advisable is a matter solely for the consideration of the Government of India.

2nd.—That the power to declare Mr. Ellis's decision liable to revision rests with the Government of India; but that this Government is not bound to admit, as a governing precedent, any decision by that officer to the discussion leading to which they were no party.

3rd.—That the whole of the items still with Sindia, and *not* specified in Article VIII. of the Treaty, and which, moreover, were neither granted nor held at any time as Inam, should at once revert to the British Government, as they ought undoubtedly to have done on the death of Dowlut Rao Sindia in 1827.

4th.—That nothing *properly* held—*i. e.* originally held on Inam tenure by Sindia under Article VIII. of the Treaty—should be subject to inquiry under the provisions of Act XI. of 1852, but should be at once entered in the public accounts as belonging to Sindia in hereditary Inam.

I have the honour to be, &c.

(Signed) H. YOUNG,

Offg. Chief Secretary to Government.

*Bombay Castle, 15th November 1855.*

— —

No. 2759.

FOREIGN DEPARTMENT.

From G. F. EDMONSTONE, Esq.,

Secretary to the Government of India,

To H. L. ANDERSON, Esq.,

Secretary to the Government of Bombay.

*Dated Fort William, 23rd May 1856.*

SIR,—I am now directed to acknowledge the receipt of Mr. Young's letter dated 15th November last, No. 4787, respecting Sindia's title to certain possessions in the Deccan under the Treaty of Surjé Anjungaum; and in reply to state that the Governor General in Council is of opinion, that the conclusions at which the Government of Bombay have arrived, upon the four points arising out of the complicated matter, are sound and well sustained.

2. There is, however, one question, connected with the first point, upon

which no opinion has been expressed by the Government of Bombay, viz. whether certain possessions continued to Sindia under Article VIII. of the Treaty of 1803 and specified by name in the Article, apparently on the ground of their having been held as Inam possessions, but which, it is now ascertained, were not so held, should be retained by Sindia as coming within the guarantee of the Treaty.

3. If the case stood precisely thus, the Governor General in Council would hold that, as a matter of right, Sindia should not retain them, notwithstanding the length of time during which he has been allowed to do so. But the question does not stand quite as clearly as the Government of Bombay represents. The English version of the Treaty of 1803 recites that, whereas Sindia, &c. represents that his family have long held "in Inam certain lands," &c. But the Persian version, which is the only signed instrument, omits the words "in Inam," and describes the lands which the Article confers only as "lands which had been long in his family." Mr. Mountstuart Elphinstone so quotes it, and a reference which His Lordship in Council has caused to be made to the original document confirms this. It does not, therefore, appear certain on the face of the Treaty that tenure "in Inam" was the necessary condition of those possessions which were continued to Sindia; although there is some ground for supposing that this was the intention. Our right, then, is not incontestable; and if so, His Lordship in Council thinks that good policy is opposed to any further urging of it.

4. On all the other points the views of the Government of Bombay are correct, and the Governor General in Council is disposed to adopt and act upon them.

I have the honour to be, &c.

(Signed) G. F. EDMONSTONE,  
Secretary to the Government of India.

*Fort William, 23rd May 1856.*

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No. 2754 OF 1856.

REVENUE DEPARTMENT.

From H. YOUNG, Esq.,  
Officiating Chief Secretary to the Government of Bombay,  
To G. F. EDMONSTONE, Esq.,  
Secretary to the Government of India.

*Dated 24th July 1856.*

SIR,—I am directed to acknowledge the receipt of your letter No. 2759 dated the 23rd May last, communicating the opinion of the Government of India on a question connected with the first of the four points submitted to that Authority in my letter to the address of Mr. Secretary Beadon, No. 4787

dated the 15th November last, arising out of the inquiry into Sindia's title to certain possessions in the Deccan under the Treaty of Surjé Anjungaum.

2. In reply, I am directed by the Right Honorable the Governor in Council to state, that the doubts which have arisen regarding the intention with which the Treaty was framed are apparently removed by the minutes of conference, and by General Wellesley's explanation afforded to the Governor General *after* the conclusion of the Treaty. This is set forth in the following paragraphs (4 to 10) of Captain Cowper's report, which it was not considered necessary to forward entire to the Government of India:—

[Here follow paragraphs 4 to 10\* of Captain Cowper's report No. 361 dated the 4th July 1854.]

3. The Government of India will perceive from the foregoing, that there cannot be any doubt regarding the *intention* with which Article VIII. of the Treaty was framed: *everything* restored by that Article is distinctly shown to have been restored solely because General Wellesley was informed "these lands were not Jagheer but were Inam." It was *only as Inam* that they could answer the description given of them by General Wellesley to the Governor General—that they were "really his (Sindia's) family property."

4. On this point, then, the evidence seems to His Lordship in Council sufficiently conclusive, and it will be for the Government of India, should they view it in the same light, to determine whether the right of the British Government to everything specified in Article VIII., which it is now ascertained was not, when that Article was framed, held, as represented, as Inam, has been fully established, and should be asserted.

5. I am directed, in conclusion, to express the hope of His Lordship in Council, that as the Government of India have expressed their general concurrence in the views of this Government on the other points discussed, measures will shortly be taken to carry these views into effect; and to request their special attention to the exchange of territory suggested in the 7th paragraph of my letter No. 4787 of the 15th November 1855.

I have the honour to be, &c.

(Signed) H. YOUNG,

Officiating Chief Secretary to Government.

*Bombay Castle, 24th July 1856.*

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No. 4468.

FOREIGN DEPARTMENT.

From the SECRETARY TO THE GOVERNMENT OF INDIA,

To the OFFG. CHIEF SECRETARY TO THE GOVERNMENT OF BOMBAY.

*Dated Fort William, 27th August 1856.*

SIR,—I have had the honour to submit to the Governor General in Council your letter dated 24th ultimo, No. 2754, in which the Right Honorable the

\* Vide pages 49 to 51.

Governor in Council of Bombay shows, by a reference to the notes of conferences at which the provisions of the Treaty of Sujé Anjungaum were discussed and settled, as well as to General Wellesley's despatches of the period, that the intention of Government was to limit the reserved possessions specified in Article VIII. of that Treaty to such as had been held by Sindia's family "in Inam."

2. In reply, I am directed to state, for the information of the Government of Bombay, that this letter has not induced His Lordship in Council to alter the conclusion to which he was led by the consideration of your preceding despatch, dated 15th November 1855, No. 4787. His Lordship in Council is of opinion that there is but one binding instrument in the matter in question, namely, the signed Persian Treaty of 1803. It does not specify tenure in Inam as a necessary condition of the lands to be ceded to Sindia. That such tenure was intended by the British negotiators to be a condition, and even that it was accepted as such by the Maharaja's Vakeels, we may have no doubt, after reading the minutes of conference quoted by the Government of Bombay; but we cannot expect those minutes to be received as indisputable evidence of others. They are not, His Lordship in Council apprehends, signed or recognised by the Vakeels; and however clearly they may establish our intention at the time, they do not stand in the place of a specification of it in the deed, or absolve us from the maxim of public law, that, if he who could and ought to have explained himself fully and clearly in a Treaty has failed to do so, it is to his own detriment. Had the case been reversed, the Government would assuredly not have admitted any claim advanced by Sindia upon records drawn up by his own Vakeels alone, and retained in the possession of the Durbar for half a century. For these reasons His Lordship in Council cannot recommend the resumption of the lands in question at the present time, however little moral doubt there may be as to our right to do so.

3. In respect to the three points noticed in your despatch of November 15th, 1855, and to which attention is again invited, I am desired to say that the Governor General in Council concurs with the Government of Bombay in thinking that it will be an advantageous arrangement for this Government to exchange the shares which it possesses in some villages reserved to Sindia by the Treaty, for entire villages equivalent in value to the valuation assigned in the Peshwas' records to those shares. The Agent Governor General, Central India, will accordingly be instructed to negotiate with the Gwalior Durbar, with the view of obtaining the consent of His Highness the Maharaja Sindia to this arrangement.

4. His Lordship in Council also approves of the proposal of the Bombay Government that the territory of Jhansie be made over to Sindia in exchange for the country south of the Vindhya Range, on the Taptee and Nerbudda, and in the neighbourhood of the railway to Jubbulpoor. If Jhansie be of adequate value, the transfer of it to Sindia would doubtless be the means of

removing a great deal of inconvenience and irritating discussion ; but as the Court of Directors have frequently declared their objection to such exchanges, whereby territories which have been under the British administration should be made over to a Native Government, His Lordship in Council will strongly recommend the measure to the Honorable Court, without whose previous consent he is unable to sanction its adoption. In the mean time, His Lordship in Council directs that the possession by Sindia of the small Inam land alleged to have been granted by the Peshwa in the capacity of Patel should not be disturbed.

5. A copy of the entire correspondence which has taken place with the Government of Bombay will be furnished to the Agent Governor General, Central India, for his information.

I have the honour to be, &c.

(Signed) G. F. EDMONSTONE,  
Secretary to the Government of India.

*Fort William, 27th August 1856.*

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**SELECTIONS FROM THE RECORDS OF THE BOMBAY  
GOVERNMENT.**

No. XL.—NEW SERIES.

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**P A P E R S**

REGARDING THE

**REVENUE SETTLEMENT EFFECTED**

IN THE

**DISTRICTS OF OMERKOTE AND THURR;**

AND ON THE

**CONDITION AND SYSTEM OF MANAGEMENT**

OF THE

**Thurr and Parkur Districts.**



**Bombay :**

PRINTED FOR GOVERNMENT

AT THE

**BOMBAY EDUCATION SOCIETY'S PRESS.**

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**1856.**





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# ASSESSMENT OF THE OMERKOTE DISTRICT.

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No. 237 OF 1856.

REVENUE DEPARTMENT.

From Lieutenant Colonel JOHN JACOB, C.B.,

Acting Commissioner in Sind,

To the Right Honorable Lord ELPHINSTONE, G.C.H.,

Governor and President in Council, Bombay.

*Dated 11th June 1856.*

MY LORD,—With reference to paragraph 35 of Mr. Frere's letter as per margin, I have the honour to transnit a very satisfactory report drawn up by Lieutenant Tyrwhitt, Deputy Collector and Magistrate of Meerpoor, detailing the settlements he has effected in the Omerkote district.

No. 62, of 12th February 1855.—Assessment of the Omerkote Desert, and of the Narra.

2. As your Lordship in Council has been made aware by Mr. Frere's report, this district is naturally divided into the flat and flooded lands lying contiguous to the Narra, and the tract of sandhills, with their intermediate hollows or Thullees. For the assessment of the former division, Lieutenant Tyrwhitt has made all the necessary preparations ; but he is unable to report what he has done until such time as the opening of the Narra supply channel shall secure the supply of fresh water to these low-lying lands. It is, then, to the fields lying among the sandhills that the Deputy Collector's present report is confined.

3. Until about two years ago, all these lands were held in lease by the heads of the Soda tribe, but under this arrangement much oppression resulted to the inferior Bheel cultivators ; cultivation had

a tendency to diminish, crime to increase, while the average annual revenue collected by Government did not exceed Rs. 6,000.

4. In the year 1854-55, some difficulties having been encountered in arranging for the usual lease, the fields were transferred from the Sodas to a Syud, who then leased them for one year for about Rs. 12,500.

5. In the mean time Mr. Frere, having personally visited the district, pointed out the objections to the system of leasing, which had been carried into effect without any adequate data, and drew up a memorandum of directions for a clear and simple registry of rights, and for the introduction of a light but fixed cash assessment, adapted at once to the peculiar circumstances of the people and the district.

6. As it was on all accounts desirable that this new system should be introduced without loss of time, Lieutenant Tyrwhitt made rough settlements for one year at once, and the result is shown in the returns for the year 1855-56, for which year the revenue amounts to upwards of Rs. 24,000, or quadruple that which was realised under the lease of the Sodas.

7. The Deputy Collector's report shows that he has now completed the rough measurements of all the fields, and fixed the rates at which they shall be assessed. These rates classify the several fields under four headings, and assess them according to their several extents: thus,—Fields from 1 to 10 beegas in extent will pay Rs. 2 annually; those containing from 10 to 20 beegas will pay Rs. 3; those from 20 to 60 beegas in extent will pay Rs. 5 a year; while any field having a larger area than 60 beegas is subjected to Rs. 8 as the Government demand. These rates give an average assessment throughout all the fields of about three annas per beega.

8. This method of settlement appears to me to be, perhaps, in the first instance, with these wild people, better than any other that could have been made; for every holder, being cognisant that his field or Thullee is assessed in the lump at a very low rate upon its entire extent, will naturally strive to cultivate that extent, and thus habits of industry will be induced, while the actual demand upon the holder will not be greater than if he had been assessed at higher rates upon the few scattered beegas which he may have hitherto been in the habit of cultivating.

9. Appended to this letter is an extract from the register, embodying every description of information which has formed the basis

of this settlement. Government will observe that it is very complete, and that if similar statements be annually framed, embodying such alterations as may take place in the transfer of rights, &c., no further confusion can occur.

10. It would, in my opinion, have been preferable could these cultivators have been induced to enter into these settlements for a term of years. But the great uncertainty of rain, combined with the treatment that they have in former years received, had so impressed the people with the risks attendant upon cultivation, that Lieutenant Tyrwhitt has found it necessary to make these settlements annual, and to provide that in years in which no rain shall fall no assessment whatsoever shall be demanded from them. As the people gain confidence in such arrangements, and a feeling of greater security arises among them, the improved system of leases and rent per beega on the entire Thullee will, I doubt not, be found capable of adoption.

11. Your Lordship in Council will observe from Lieutenant Tyrwhitt's 10th paragraph that he recommends certain Pâtels as deserving of small rent-free grants of land. In this recommendation I fully concur. These heads of villages might, in this district, be made specially useful in the settlement of petty grazing disputes; in assisting the Police in the detection of crime; and as a general connecting link between the district revenue officers and the widely scattered inhabitants of this tract.

12. From the statement appended to the Deputy Collector's report it appears that cultivation, under this light and equitable settlement, has already greatly extended; and when the proposed boundary marks shall be affixed to every man's holding, I cannot doubt that these cultivators will yet further feel the benefits derivable from a fixed and permanent tenure.

13. Government will observe that this great benefit has been secured at a cost of little more than Rs. 200; and from a personal inspection of the Native settlement records, and of the district itself, I have no hesitation in assuring your Lordship in Council that the degree of tact and personal activity shown by Lieutenant Tyrwhitt in this very laborious work is highly creditable to that officer. The more accurate measurements contemplated in the Deputy Collector's 15th paragraph will be carried out by the Putwarces, or village accountants, lately sanctioned by Government for this province. These officials are now being taught the details of field measurement, and



will, I have no doubt, be fully equal to carrying out, not only these, but all similar measurements in Sind; and the only additional expense which can henceforth devolve upon Government will be that of a Moonshce upon Rs. 15, for three or four months, for the completion of the settlement records.

14. The reduction of rates in respect to garden land, as reported in Lieutenant Tyrwhitt's 29th and 30th paragraphs, is judicious, and is, moreover, in accordance with Mr. Frere's instructions marginally noted.

No. 201, of the 19th January 1855.  
(Vide Printed Selections, No. XXI.)

15. The sandhills intervening between these fields yield a coarse but very nutritious grass. I would not, however, recommend that any grazing fee should be levied upon this: for it appears to me that in a tract like that now under report our main object should be to induce the tribes to refrain from plunder, and settle down peaceably to agriculture; and that, in order to secure this result, we should render their circumstances easy, by leaving untaxed their pastoral wealth.

16. It does not occur to me to make any other remark, unless to express my perfect concurrence in the anticipation that, under the present low and popular assessment, the revenue of this desert district will annually increase.

See Lieutenant Tyrwhitt's 33rd paragraph.

17. I would request the favour of your Lordship in Council directing that the papers now submitted be printed as a continuation of No. XXI. of the New Series of Selections from the Government Records, and I think that the documents concluding with my letter as per margin, having reference to a country and survey in many respects very similar with that of the Omerkote district, might be advantageously embodied in the same compilation. The timely publication of such papers effects much good in this province.

Report on Thurr and Parkur, No. 1370, of the 3rd instant.

I have the honour to be,  
My Lord,  
Your Lordship's most obedient, humble servant,

JOHN JACOB, Lieutenant Colonel,  
Acting Commissioner in Sind.

*Commissioner's Office, Kurrachee, 11th June 1856.*

No. 131 OF 1856.

REVENUE DEPARTMENT.

From the DEPUTY COLLECTOR OF MEERPOOR,  
To the COLLECTOR OF HYDERABAD.

*Dated 10th May 1856.*

SIR,—I have the honour to forward with this report a form of the register of the whole of the fields, or Thullees, in the Omerkote districts, now being made out according to the instructions furnished me by Commissioner Mr. Frere in his memorandum No. 201, dated 19th January 1855.

2. From the moment I received the above instructions I began the work : how far I have succeeded remains to be shown ; but the delay in completing the register has been merely caused by the immense quantity of ground that has had to be gone over, the large measurements, and the many obstacles to be overcome ; and I am happy to say my anticipations with regard to the production, however, of these districts have been fully realised.

3. I have personally tested the register, and beg leave to report it to be a true and correct register.

4. The forms attached are meagre in their information, but the Omerkote districts having been never visited by any European, except upon any emergent occasion, the revenue has never been looked after in detail.

5. I have been many times into the Thurr, but twice I have been most carefully all over it, and I have on every occasion tried to make myself acquainted with the actual state of the country.

6. The classes I have fixed, and their rates, give universal satisfaction, and it was after trying every other plan of assessment without success that I have adopted it.

7. The classes are as follows :—

|                 |                |       |     |   |   |   |
|-----------------|----------------|-------|-----|---|---|---|
| For fields from | 1 to 10 beegas | ..... | Rs. | 2 | 0 | 0 |
| Ditto           | 10 to 20 do.   | ..... |     | 3 | 0 | 0 |
| Ditto           | 20 to 60 do.   | ..... |     | 5 | 0 | 0 |
| Ditto           | 60 and upwards | ..... |     | 8 | 0 | 0 |

Giving an average assessment per beega as follows :—

|  |     |   |   |    |
|--|-----|---|---|----|
| Tuppa Omerkote, per beega .....          | Rs. | 0 | 3 | 8½ |
| Tuppa Chachra, do. ....                  |     | 0 | 2 | 3  |
| Tuppa Guddra, do. ....                   |     | 0 | 2 | 9½ |
| Tuppa Nubbeesur, do. ....                |     | 0 | 7 | 5  |
| And for the whole of Omerkote per beega. |     | 0 | 2 | 0½ |

The Nubbeesur average may seem large, but is from the people not having cultivated the full size of the Thullees, which this year they will all do, and its average will become nearly the same as the other Tuppas. The people object to a lease, and also to a beega assessment, although I have pointed out the advantages.

8. Under the arrangements I have made every one has increased his Thullee up to the full number of beegas of the class it belongs to, or intends doing so; they will then put up boundary marks, and new cultivation will form new Thullees, and any one can, by giving due notice to the Tuppadar, bring more ground under cultivation, and the new Thullee thus made will be placed in whatever class its size determines. Every owner of a Thullee or Thullees is to be furnished with a register of his Thullee or Thullees, provided he has erected boundary marks of earth, grass, and sticks, built up with mud, easily made during the rain.

9. In years of no rain, I propose levying nothing from those parts where no rain has fallen.

10. I beg to enclose a list of those Patels whom I think deserving of a small free grant of land, and the amount to be granted opposite their names.

11. The Omerkote districts have been sadly neglected, and their capabilities never tested. I find the cultivators hard working during the rainy season, and tractable. They are chiefly Rajpoots, Bheels, and Musulmans. I attach a form, showing as nearly as possible their numbers.

12. Since the execution of Rutton Sing, and the removal of a few very troublesome and intriguing Sodas from Omerkote, I find I have an open field to work in, with the will and best wishes of all classes on my side, and no under-current to work against me.

13. I attach a form showing the increased cultivation, and if my rate of assessment be approved of, I am certain the cultivation will increase to a much greater extent.

14. During the lease of the Sodas, there is no doubt that, with the

exception of their own Rajpoots, the Sodas were very hard upon the other classes of cultivators. This, together with the former Kardar, Lucha Sing, being a bosom friend of the Sodas, and who never during his four years of office as Kardar ever went into the districts, gave much dissatisfaction, and was the cause of so many Thullees not being cultivated; for the Sodas, when lease-holders, with their followers and cattle, had to be subsisted by the cultivators (including opium), whenever their villages were visited by them, during the assessment time.

15. The soil of the Thullees throughout Omerkote is of the same description, viz. Gusseer mixed with Khattee and Draga, and admits of the cultivation of the following crops:—Bajree, Moong, Gowhar, Chowrah, Til, Kirug, Kuchra, Renbur, Sawun, and Melons. After the Khureef of 1856 I intend again measuring all the Thullees by means of measures, as during these rains clear distinct marks will be put up, and for the future all new cultivation will be yearly entered in the register.

16. It is the custom with the cultivators to sow several crops in one field,—such as Bajree, Til, Moong, and Gowhar, all in one field.

17. All the cattle graziers in these districts own and cultivate Thullees, as otherwise they would have to buy grain at an exorbitant price; and also by cultivating they keep their claim to Thurrs clear.

18. Many old pukka wells of the time of the Meers are being brought under repair, and the land near them is all being cultivated upon the terms as laid down in the classes.

19. The list of roads thirty feet broad that have been made is attached, and the introduction of road-making has, I am happy to say, given universal satisfaction, as it removes the great evil of everybody at any time of day or night insisting upon the first poor person he met showing him the way to his destination gratis. Now these roads are made, not a single guide is asked for, nor, if asked for, would be got.

20. A list of the buildings built and to be built is attached, and I hope will prove satisfactory; for I beg leave to assure you that to build in the Thurr with all the obstacles is a very difficult and uneasy undertaking.

21. Bricklayers and carpenters I send out stay a week or so, and then run back to Hyderabad, saying they cannot stand the climate, the water, and the work; and to keep under the estimate I find it no easy matter.

22. In returning to the subject of assessment for the Thullees, I can see no better way of assessment that will give general satisfaction. The Sodas used to levy the following rates for every Thullee or field, large or small, when rain fell :—

|                               |         |          |   |   |   |
|-------------------------------|---------|----------|---|---|---|
| Omerkote Tuppa, for a Thullee | .....   | Rs.      | 2 | 0 | 0 |
| Chachra                       | do. do. | .. . . . | 2 | 8 | 0 |
| Guddra                        | do. do. | .....    | 2 | 8 | 0 |
| Nubbeesur                     | do. do. | .....    | 2 | 8 | 0 |

In the Meers' time, and for several years after the conquest, Buttai was levied at the rate of two-fifths of the produce.

23. The free grants of Thullees to the Sodas and Patels will all have boundary marks put up ; in fact all the Sodas have, with one or two exceptions, put up marks to their Thullees as always granted to them.

24. They used formerly, when they had all their own way, to select different and new Thullees every season in their free grants ; but this led to great confusion, and caused much dissatisfaction to other cultivators, who would never be certain that their Thullees would not be selected by the Sodas, and their selection backed out by the Kardar . now every alienated Thullee will have its boundary marks.

25. Arrangements are being made with all the Patels to plant trees at their different Thurrs, and in their villages ; and to enable them to start successfully, I intend giving them a little pecuniary assistance from the Rs. 1,000 annually granted to me.

26. Crime in the Thurr is now so much decreased that it is not greater than crime in any other Talooka. This I attribute to the judicious selection of the places for outposts on the Jodhpoor frontier ; and the number of police having been increased, they are all able to patrol properly, and frequently ; and to this add that all the crimes clearly proved have been most severely punished.

27. The only extra expense Government have as yet been put to for the formation of the register and rough measurement has been about Rs. 200, consisting of pay for one extra Moonshee at Rs. 15 a month, and two Kotars at Rs. 4 a month. The Kotars have now been discharged, but the Moonshee will be employed in making out the fair register should the plan be sanctioned.

28. A copy of Mr. Frere's instructions is herewith enclosed.

29. I have reduced the rates for garden lands at Omerkote and

Nubbeesur from Rs. 1-8-0 to Rs. 1, as the people have to draw the water from deep wells, and are put to expense.

30. The reduction has had the effect of doubling the amount of garden cultivation, which in size is daily increasing, all the old gardens and old wells being resumed. This year the garden lands about Omerkote have produced very fine crops of onions, and also of greens, besides other vegetables, for which in Omerkote and the surrounding villages they find a ready sale.

31. With regard to the cultivation of the Putt, the plain belonging to Omerkote, I have said nothing, as its assessment cannot be fixed until I can see my way more clearly with regard to the Narra, which will, I hope, when the new supply channel is opened, pass right through it.

32. My average assessment for the cultivation on the plain dependent on rain, for last year, averaged 12 annas a beega; last year having been a very good season, the rain falling at proper seasons, and in sufficient quantities.

33. In conclusion I may mention, that notwithstanding the very low Beegotee rate of my assessment first introduced on this system last year, the revenue yielded for the Omerkote Purguna has been Rs. 24,663, every pie of which has been paid up, against Rs. 4,846-1-1, the former average under the lease and Buttai system; and I anticipate that the revenue will increase yearly under the present low and popular assessment.

34. I have made arrangements with Captain Raikes, Deputy Collector of the Thurr and Parkur, to meet him next cold season at Nowakote, and, after carefully examining the boundary, to there and then settle all disputes.

I have the honour to be, &c.

(Signed) G. B. TYRWHITT,  
Deputy Collector.

*Hyderabad, Meerpoor Deputy Collector's Office,  
11th May 1856.*

(True copy) L. PELLY,  
Acting Assistant Commissioner in Sind.

No. 201 of 1855.

## REVENUE DEPARTMENT.

To the COLLECTOR OF HYDERABAD.

*Memorandum regarding the Assessment of the Desert Lands of Omerkote, &c.*

All the Desert Districts of the Narra and Jooda should be transferred to Omerkote, with the exception of such portions as, from the proximity to Keepra or any other cause, the Deputy Collector may think it advisable to have attached to the Narra.

2. He should ascertain,—

1st.—The ancient Purgunas into which the district is popularly divided.

3. 2nd.—The names of all the permanent Dehs or Thurrs in each.

4. 3rd.—The names of the Patels, and principal Zemindars.

5. A list should then be framed of all the Thullees or fields, and recorded in a field-book, or “Jungle Kurda,” in the following form :—

| Number | Name of the Thullee, and marks by which it is distinguishable. | Cultivator's Name. | Estimated Extent in Beegas. | Class in which the Field is to be placed. |      |      | Remarks. |
|--------|--|--------------------|-----------------------------|---|------|------|----------|
|        |  |                    |                             | 1st.                                      | 2nd. | 3rd. |          |
| 1      | 2  | 3                  | 4                           | 5   | 6    | 7    | 8        |
|        |  |                    |                             | •   |      |      |          |

6. The information in columns 1 and 4 should be obtained by the Kardar, aided by two Ameens; one of them should be nominated by the Deputy Collector, and one by the cultivators.

7. All three should sign the list of Thullees in any Deh, and each of the three may separately record any dissent from the opinion of his colleagues.

8. In cases of dispute as to estimated area, the Thullee should be measured.

9. After receiving the information contained in columns 1 and 4 for the whole district from the parties employed, the Deputy Collector will settle what Thullees should go into each of the three classes, and will fix the rate for each class, and also for the uncultivated Thullees.

10. He should assign to each Patel one or more Thullees, according to his duties, and the size of his village, to be held rent-free, during good behaviour, as recompense for his official services.

11. A separate document, under the Deputy Collector's hand and seal, should be given to the Patel, specifying the nature and extent of the grant, and of the duties expected of him.

12. When the field-book is completed, four fair copies should be made, one for the Tuppadar, one for the Kardar's Office, one for the Hoozoor Duftur, and one for the Deputy Collector.

13. The Patel, if he wishes, should also be allowed to take a copy; and every cultivator who wishes for it should receive a paper under the Deputy Collector's seal and signature, stating the above particulars relating to his own fields, and showing exactly the sum he will have to pay yearly.

14. The annual "Munter Kurda" will be a copy of the above, with any changes of ownership which may have taken place during the year. The cultivated Thullees only will be put into columns 5 and 7, and an extra column will be added for Thullees left waste. The total of the four columns will then give the year's Jummabundee.

15. The Deputy Magistrate should obtain from the Lieutenant of Police permanent Purwanas, not subject to annual renewal, permitting, during good behaviour, such of the Chiefs as come within the meaning of the orders of the late Governor to carry their swords, viz:—

"All Chiefs who have made their Salaams are entitled to carry arms personally." (Extract paragraph 2 of G. O. of 16th February 1854.)

16. Any expenses beyond what are incident to the ordinary district duties should be drawn for in a contingent bill.

(Signed) H. B. E. FRERE,  
Commissioner in Sind.

*Commissioner's Office, Camp Bukkur, 19th January 1855.*

P. S.—The garden lands should be assessed at a Begottee cash rate,



according to their local advantages, and the ordinary rate for garden land (Rs. 1-7-4) should not be adhered to unless found to suit local peculiarities.

At the end of the season a report should be sent in, for the information of Government, showing how far these instructions have been carried out.

(Signed) H. B. E. FRERE,  
Commissioner in Sind.

(True copy)

(Signed) G. B. TYRWHITT,  
Deputy Collector.

(True copy) L. PELLY,  
Acting Assistant Commissioner in Sind.

*Statement showing the Annual Revenue of the Omerkote Districts  
from the Conquest up to the Year 1855-56.*

| Year.           |                |         |         |       | Omerkote. |    |    |
|-----------------|----------------|---------|---------|-------|-----------|----|----|
|                 |                |         |         |       | Rs.       | a. | p. |
| Kurreef, Fuslee | 1254, or A. D. | 1843-44 | .....   |       | 411       | 11 | 3  |
| "               | "              | 1255, " | 1844-45 | ..... | 5,353     | 3  | 7  |
| "               | "              | 1256, " | 1845-46 | ..... | 3,100     | 14 | 10 |
| "               | "              | 1257, " | 1846-47 | ..... | 7,184     | 8  | 3  |
| "               | "              | 1258, " | 1847-48 | ..... | 5,508     | 7  | 11 |
| "               | "              | 1259, " | 1848-49 | ..... | 3,187     | 4  | 6  |
| "               | "              | 1260, " | 1849-50 | ..... | 12,375    | 10 | 7  |
| "               | "              | 1261, " | 1850-51 | ..... | 6,497     | 6  | 4  |
| "               | "              | 1262, " | 1851-52 | ..... | 6,389     | 10 | 11 |
| "               | "              | 1263, " | 1852-53 | ..... | 6,389     | 10 | 11 |
| "               | "              | 1264, " | 1853-54 | ..... | 6,389     | 10 | 11 |
| "               | "              | 1265, " | 1854-55 | ..... | 12,791    | 14 | 3  |
| "               | "              | 1266, " | 1855-56 | ..... | 20,663*   | 10 | 6  |

\* Of this sum Rs. 5,133-8-11 form the revenue of Nubbeesur, brought under Omerkote this year, but which previously was included in the Jooda Talooka; deducting the above sum, the remainder, Rs. 14,877-1-7, is the revenue of Omerkote.

(Signed) G. B. TYRWHITT,  
Deputy Collector.

(True copy) L. PELLY,  
Acting Assistant Commissioner in Sind.

*Statement showing the Number of Government Buildings constructed  
in the Omerkote Talooka since the Conquest.*

| No. | Nature of Building.   | Where situated.   | Remarks.   |
|-----|-----------------------|-------------------|--|
| 1   | Bungalow.....         | Omerkote.....     | Erected at the time Lieutenant Forbes was Deputy Collector.  |
| 2   | Ditto .....           | Soofee-ka-Gote .. | Erected at the time Lieutenant Jameson was Deputy Collector. |
| 3   | Police Lines .....    | Chachra .....     | Erected at the time Lieutenant Dickson was Deputy Collector. |
| 4   | Tuppadar's Dehra ..   | Chachra .....     | Erected since Lieutenant Tyrwhitt's appointment.             |
| 5   | Ditto ditto ..        | Nubbeesur .....   | Ditto ditto.   |
| 6   | Ditto ditto ..        | Chore .....       | Ditto ditto.   |
| 7   | Dhurumsala .....      | Akree .....       | Ditto ditto.   |
| 8   | Police Lines.....     | Nubbeesur .. ..   | Ditto ditto.   |
| 9   | Rural Police Lines .. | Omerkote.....     | Ditto ditto.   |
| 10  | Police Lines .....    | Cheyhar .....     | In course of erection.                                       |
| 11  | Kardar's Dehra .....  | Omerkote.....     | Ditto ditto.   |
| 12  | Police Lines.....     | Omerkote.....     | Ditto ditto.   |

(Signed) G. B. TYRWHITT,  
Deputy Collector.

(True copy) L. PELLY,  
Acting Assistant Commissioner in Sind.

*Statement showing the Number of Cases tried, and the Number of  
Prisoners in each Case, in the Omerkote Talooka, during the  
past Five Years.*

| Purgana.    | Years.              | Number of Cases tried. | Number of Prisoners tried. | Remarks. |
|-------------|---------------------|------------------------|----------------------------|----------|
| Omerkote. { | 1852                | 21                     | 24                         |          |
|             | 1853                | 89                     | 128                        |          |
|             | 1854                | 98                     | 184                        |          |
|             | 1855                | 124                    | 276                        |          |
|             | 1856 up to 1st May. | 19                     | 41                         |          |

(Signed) G. B. TYRWHITT,  
Deputy Collector.

(True copy) L. PELLY,  
Acting Assistant Commissioner in Sind.

*Statement showing the Amount of Land intended to be granted Free of Assessment to Patels, Omerkote Talooka, as Rewards to them for their discharge of the duties of a Patel, as awarded by Mr. FRERE.*

| No. | Name of Deh.           | Name of Patel.                      | What Amount of Land free to be granted as a reward for discharging the duties of a Patel. |            |            |            |
|-----|------------------------|-------------------------------------|---|------------|------------|------------|
|     |                        |                                     | 1st Class.  | 2nd Class. | 3rd Class. | 4th Class. |
| 1   | Paboohur .....         | Bhojo and Sewayee.                  | ..  | ..         | 1 Thullee  | 1 Thullee  |
| 2   | Mitro Rawut . . . .    | Bhojo Charun . . .                  | ..  | 1 Thullee  | ..         | ..         |
| 3   | Hung Thull . . . . .   | Naitha . . . . .                    | ..  | 1 do.      | ..         | 1 do.      |
| 4   | Thur Tukajee . . . .   | Tookachee . . . . .                 | ..  | ..         | ..         | 1 do.      |
| 5   | Chachra . . . . .      | Bajoo Soda . . . . .                | ..  | 1 do.      | ..         | ..         |
| 6   | Jarrilloh . . . . .    | Soboh Rind . . . . .                | ..  | ..         | 1 do.      | ..         |
| 7   | Roorgaor . . . . .     | Oobra Sumajo . . . .                | ..  | ..         | 1 do.      | 1 do.      |
| 8   | Kaisur . . . . .       | Daisur Kailan . . . .               | ..  | 1 do.      | ..         | ..         |
| 9   | Benhan . . . . .       | Surdaroo . . . . .                  | ..  | ..         | 1 do.      | ..         |
| 10  | Soogroh . . . . .      | Bucho Soda . . . . .                | ..  | ..         | 1 do.      | ..         |
| 11  | Gingee . . . . .       | Mooso Gingee . . . .                | ..  | ..         | 1 do.      | ..         |
| 12  | Thurr Ahmed . . . .    | Lushkarce . . . . .                 | ..  | ..         | 1 do.      | ..         |
| 13  | Thurr Khoodce . . . .  | Mego Shikarce . . . .               | ..  | ..         | 1 do.      | ..         |
| 14  | Rawutsur . . . . .     | Ahmed Khan . . . . .                | ..  | ..         | 1 do.      | ..         |
| 15  | Deh Rajorah . . . . .  | Jessing Sealhate . . .              | ..  | 1 do.      | ..         | ..         |
| 16  | Jinhar . . . . .       | Bhimo Bopoh . . . . .               | ..  | ..         | 1 do.      | ..         |
| 17  | Charnoar . . . . .     | Doorgah Charun . . .                | ..  | ..         | 1 do.      | 1 do.      |
| 18  | Bhavee . . . . .       | Seerodavut . . . . .                | ..  | ..         | 1 do.      | ..         |
| 19  | Surunghiar . . . . .   | Mahsing Wanun . . . .               | ..  | ..         | 1 do.      | ..         |
| 20  | Winghar . . . . .      | Mahsing Dhoat . . . .               | ..  | 1 do.      | ..         | 1 do.      |
| 21  | Dhattah . . . . .      | Oomeido Dhoat . . . .               | ..  | 1 do.      | ..         | 1 do.      |
| 22  | Roohur . . . . .       | Bojoo Kailan . . . . .              | ..  | ..         | 1 do.      | ..         |
| 23  | Dhur Guddroh . . . .   | Dhiroh Kailan . . . . .             | ..  | ..         | 1 do.      | ..         |
| 24  | Charun Wavree . . . .  | Saib Phoatrio . . . . .             | ..  | 1 do.      | ..         | ..         |
| 25  | Kutyaree . . . . .     | Bahadoor Noiree . . .               | ..  | ..         | 1 do.      | 1 do.      |
| 26  | Phamoo . . . . .       | Moohar Soda . . . . .               | ..  | 1 do.      | ..         | ..         |
| 27  | Luploh . . . . .       | Opa Sumajo . . . . .                | ..  | ..         | 1 do.      | ..         |
| 28  | Billiyarah . . . . .   | Kukeem Sumajo . . . .               | ..  | ..         | 1 do.      | ..         |
| 29  | Kumburloh . . . . .    | Juffur Ramo . . . . .               | ..  | ..         | 1 do.      | ..         |
| 30  | Allumsur . . . . .     | Mark Sumajo . . . . .               | ..  | ..         | 2 do.      | ..         |
| 31  | Viatorah . . . . .     | Seekeeludah . . . . .               | ..  | ..         | ..         | 1 do.      |
| 32  | Sailoh . . . . .       | Rahmun Seekan . . . .               | ..  | ..         | 1 do.      | ..         |
| 33  | Thurr Daloo . . . . .  | Wussayo Boatah . . . .              | ..  | ..         | ..         | 1 do.      |
| 34  | Kuploar . . . . .      | Soojah Dhoat . . . . .              | ..  | ..         | 1 do.      | ..         |
| 35  | Rahnar . . . . .       | Issop Hallapatah . . .              | ..  | ..         | ..         | 1 do.      |
| 36  | Dhinore . . . . .      | Himmuttah Sun-<br>grassee . . . . . | ..  | ..         | 1 do.      | ..         |
| 37  | Koorban Allee . . . .  | Syed Koorban Allee . .              | ..  | 1 do.      | 2 do.      | ..         |
| 38  | Nubbeesur . . . . .    | Dhurs Moobaruk . . . .              | ..  | 1 do.      | 1 do.      | ..         |
| 39  | Thurr Hameer . . . . . | Soomairo Soda . . . . .             | ..  | 1 do.      | ..         | ..         |
| 40  | Deh Bhoario . . . . .  | Sukiludo Sumajo . . .               | ..  | ..         | 1 do.      | ..         |

(Signed) G. B. ТУРВННТ, Deputy Collector.

(True copy)

L. Pelly, Acting Assistant Commissioner in Sind.

*Statement showing the Number of Roads constructed by Lieutenant TYRWHITT in the Omerkote Districts, their Length and Breadth.*

| No.         | From and to.  | Length in Miles. | Breadth of Road. | Whether completed or not.  |
|-------------|---|------------------|------------------|----------------------------|
| 1           | From Omerkote to Soofee-ka-Gote . . .                 | 12               | 40 feet.         | Completed.                 |
| 2           | From Nubbeesur to Omerkote . . . . .                  | 20               | 20 do.           | Ditto.                     |
| 3           | From Omerkote to Chachra . . . . .                    | 48               | Ditto.           | Ditto.                     |
| 4           | From Omerkote to Guddra . . . . .                     | 60               | Ditto.           | Ditto.                     |
| 5           | From Omerkote to Ghoolam Nubbee . .                   | 20               | Ditto.           | Ditto.                     |
| 6           | From Nubbeesur to Nowakote . . . . .                  | 20               | Ditto.           | Ditto.                     |
| 7           | From Nubbeesur to Kalachee (Jooda Boundary) . . . . . | 10               | Ditto.           | Ditto.                     |
| 8           | From Nubbeesur to Choondava . . . . .                 | 6                | Ditto.           | Ditto.                     |
| 9           | From Nubbeesur to Cheylar . . . . .                   | 24               | Ditto.           | Ditto.                     |
| 10          | From Chachra to Cheylar . . . . .                     | 24               | Ditto.           | Ditto.                     |
| 11          | From Chachra to Guddra . . . . .                      | 48               | Ditto.           | Ditto.                     |
| 12          | From Chachra to Kaisur . . . . .                      | 24               | Ditto.           | In course of construction. |
| Total . . . |   | 316              |                  |                            |

(Signed) G. B. TYRWHITT,  
Deputy Collector.

(True copy)

L. PELLY,  
Acting Assistant Commissioner in Sind.

*Statement showing the Result of the Measurement of the Fields in the Omerkote Talooka.*

| Talukas.  | Number of Dehs. |        | Number of Thullees and Beegas. |                  | Number of Free Grants and Jagheers. | Government Fields remaining. | Description of Class the Government Fields belong to. |            |            |            | Amount of Revenue for the Omerkote Thulls or Thullees. | Average Rupees per Acre. |                  |                                     |                                    |                          |            |
|-----------|-----------------|--------|--------------------------------|------------------|-------------------------------------|------------------------------|---|------------|------------|------------|--|--------------------------|------------------|-------------------------------------|------------------------------------|--------------------------|------------|
|           |                 |        |                                |                  |                                     |                              | 1st Class.  | 2nd Class. | 3rd Class. | 4th Class. |  |                          |                  |                                     |                                    |                          |            |
|           | Pukka.          | Kutch. | Total of Thullees.             | Total of Beegas. | Total of Thullees.                  | Total of Beegas.             |   |            |            |            |  |                          | Above 60 Beegas. | Above 20 Beegas, not exceeding 100. | Above 10 Beegas, not exceeding 20. | Not exceeding 10 Beegas. |            |
| 1         | 2               | 3      | 4                              | 5                | 6                                   | 7                            | 8   | 9          | 10         | 11         | 12   | 13                       | 14               | 15                                  | 16                                 |                          |            |
| Omerkote. | Omerkote..      | 4      | 83                             | 2,255            | 27,197                              | 10                           | 304   | 4,220      | 17         | 1,951      | 22,976   | 13                       | 224              | 775                                 | 952                                | Rs. a. p. 5,349 0 0      |            |
|           | Chachra ...     | 4      | 101                            | 3,025            | 91,197                              | 6                            | 37  | 1,185      | 19         | 2,988      | 90,011   | 7                        | 289              | 1,340                               | 887                                | 472                      | 12,617 0 0 |
|           | Guddra.....     | 2      | 81                             | 1,367            | 28,083                              | 12                           | 17  | 359        | 5          | 1,350      | 27,724   | 7                        | 29               | 487                                 | 469                                | 365                      | 4,804 0 0  |
|           | Nubbeesur..     | 6      | 62                             | 732              | 4,068                               | .                            | ..  | ..         | .          | 732        | 4,068  | 1                        | 91               | 250                                 | 390                                | 1,893 0 0                | 0 7 5      |
|           | Total...        | 16     | 327                            | 7,379            | 150,546                             | 8                            | 358   | 5,768      | 11         | 7,021      | 144,780  | 7                        | 319              | 2,142                               | 2,381                              | 2,179                    | 24,663 0 0 |

N.B.—The average assessment for all the Thullees—2 annas and 8½ pies.

(Signed) G. B. TYRWHITT,  
Deputy Collector.

(True copy) L. PELLY,  
Acting Assistant Commissioner in Sind.

*Statement showing the Average Size of all the Fields of the Omerkote Kardarate, from One Beega upwards.*

|                                   | Omerkote<br>Tuppa-<br>daree. | Chachra<br>Tuppa-<br>daree. | Guddra<br>Tuppa-<br>daree. | Nubbesur<br>Tuppa-<br>daree. | Total<br>Beegas. |
|-----------------------------------|------------------------------|-----------------------------|----------------------------|------------------------------|------------------|
| Total of Thullees in each Tuppa . | 1,544                        | 2,976                       | 1,338                      | 614                          | 6,472            |
| From 1 to 5 beegas . . . . .      | 173                          | 74                          | 62                         | 67                           | 376              |
| From 6 to 10 beegas . . . . .     | 521                          | 389                         | 297                        | 242                          | 1,449            |
| From 11 to 15 beegas . . . . .    | 454                          | 393                         | 251                        | 122                          | 1,220            |
| From 16 to 20 beegas . . . . .    | 187                          | 493                         | 214                        | 95                           | 989              |
| From 21 to 25 beegas . . . . .    | 144                          | 310                         | 150                        | 50                           | 654              |
| From 26 to 30 beegas . . . . .    | 43                           | 265                         | 115                        | 19                           | 472              |
| From 31 to 35 beegas . . . . .    | 11                           | 171                         | 61                         | 8                            | 251              |
| From 36 to 40 beegas . . . . .    | 9                            | 189                         | 41                         | 7                            | 246              |
| From 41 to 45 beegas . . . . .    | 1                            | 126                         | 32                         | 1                            | 160              |
| From 46 to 50 beegas . . . . .    | 1                            | 124                         | 27                         | 1                            | 153              |
| From 51 to 55 beegas . . . . .    | ..                           | 91                          | 14                         | ..                           | 105              |
| From 56 to 60 beegas . . . . .    | ..                           | 62                          | 15                         | 1                            | 78               |
| From 61 to 65 beegas . . . . .    | ..                           | 63                          | 6                          | ..                           | 69               |
| From 66 to 70 beegas . . . . .    | ..                           | 46                          | 80                         | ..                           | 56               |
| From 71 to 75 beegas . . . . .    | ..                           | 35                          | 4                          | ..                           | 39               |
| From 76 to 80 beegas . . . . .    | ..                           | 32                          | 5                          | ..                           | 37               |
| From 81 to 85 beegas . . . . .    | ..                           | 23                          | ..                         | 1                            | 24               |
| From 86 to 90 beegas . . . . .    | ..                           | 23                          | ..                         | ..                           | 23               |
| From 91 to 95 beegas . . . . .    | ..                           | 6                           | ..                         | ..                           | 6                |
| From 96 to 100 beegas . . . . .   | ..                           | 8                           | ..                         | ..                           | 8                |
| From 101 to 105 beegas . . . . .  | ..                           | 9                           | ..                         | ..                           | 9                |
| From 106 to 110 beegas . . . . .  | ..                           | 3                           | 2                          | ..                           | 5                |
| From 111 to 115 beegas . . . . .  | ..                           | 10                          | ..                         | ..                           | 10               |
| From 116 to 120 beegas . . . . .  | ..                           | 5                           | 1                          | ..                           | 6                |
| From 121 to 125 beegas . . . . .  | ..                           | 7                           | ..                         | ..                           | 7                |
| From 126 to 130 beegas . . . . .  | ..                           | 4                           | 1                          | ..                           | 5                |
| From 131 to 135 beegas . . . . .  | ..                           | 3                           | ..                         | ..                           | 3                |
| From 136 to 140 beegas . . . . .  | ..                           | 4                           | ..                         | ..                           | 4                |
| From 141 to 145 beegas . . . . .  | ..                           | 2                           | ..                         | ..                           | 2                |
| From 146 to 150 beegas . . . . .  | ..                           | 1                           | ..                         | ..                           | 1                |
| From 151 to 155 beegas . . . . .  | ..                           | 1                           | ..                         | ..                           | 1                |
| From 156 to 160 beegas . . . . .  | ..                           | ..                          | ..                         | ..                           | ..               |
| From 161 to 165 beegas . . . . .  | ..                           | ..                          | ..                         | ..                           | ..               |
| From 166 to 170 beegas . . . . .  | ..                           | ..                          | ..                         | ..                           | ..               |
| From 171 to 175 beegas . . . . .  | ..                           | 2                           | ..                         | ..                           | 2                |
| From 176 to 180 beegas . . . . .  | ..                           | ..                          | ..                         | ..                           | ..               |
| From 181 to 185 beegas . . . . .  | ..                           | ..                          | ..                         | ..                           | ..               |
| From 186 to 190 beegas . . . . .  | ..                           | 1                           | ..                         | ..                           | 1                |
| From 191 to 195 beegas . . . . .  | ..                           | ..                          | ..                         | ..                           | ..               |
| From 196 to 200 beegas . . . . .  | ..                           | ..                          | ..                         | ..                           | ..               |
| From 201 to 205 beegas . . . . .  | ..                           | ..                          | ..                         | ..                           | ..               |
| From 206 to 210 beegas . . . . .  | ..                           | ..                          | ..                         | ..                           | ..               |
| From 211 to 215 beegas . . . . .  | ..                           | ..                          | ..                         | ..                           | ..               |
| From 216 to 220 beegas . . . . .  | ..                           | ..                          | ..                         | ..                           | ..               |
| From 221 to 225 beegas . . . . .  | ..                           | ..                          | ..                         | ..                           | ..               |
| From 226 to 230 beegas . . . . .  | ..                           | ..                          | ..                         | ..                           | ..               |
| From 231 to 235 beegas . . . . .  | ..                           | ..                          | ..                         | ..                           | ..               |

|                              | Omerkote<br>Tuppa-<br>daice. | Chachra<br>Tuppa-<br>daice. | Guddra<br>Tuppa-<br>daice. | Nubbeesur<br>Tuppa-<br>daice. | Total<br>Beegas. |
|------------------------------|------------------------------|-----------------------------|----------------------------|-------------------------------|------------------|
| From 236 to 240 beegas.....  | ..                           | .                           | .                          | ..                            | .                |
| From 241 to 245 beegas ..... | ..                           | .                           | ..                         | ..                            | .                |
| From 246 to 250 beegas ..... | ..                           | ..                          | ..                         | ..                            | ..               |
| From 251 to 255 beegas ..... | .                            | ..                          | .                          | ..                            | .                |
| From 256 to 260 beegas ..... | ..                           | ..                          | ..                         | ..                            | .                |
| From 261 to 265 beegas ..... | ..                           | ..                          | ..                         | ..                            | ..               |
| From 266 to 270 beegas ..... | ..                           | ..                          | ..                         | ..                            | ..               |
| From 271 to 275 beegas ..... | ..                           | ..                          | ..                         | ..                            | .                |
| From 276 to 280 beegas ..... | ..                           | ..                          | ..                         | .                             | ..               |
| From 281 to 285 beegas ..... | ..                           | ..                          | ..                         | .                             | .                |
| From 286 to 290 beegas ..... | ..                           | .                           | ..                         | ..                            | .                |
| From 291 to 295 beegas ..... | ..                           | 1                           | .                          | .                             | 1                |
| From 296 to 300 beegas ..... | .                            | ..                          | ..                         | .                             | .                |

(Signed) G. TYRWHITT, Lieutenant,  
Deputy Collector.

(True copy) L. PELLY,  
Acting Assistant Commissioner in Sind.

NO. 2770 OF 1856.

TERRITORIAL DEPARTMENT, REVENUE.

To the ACTING COMMISSIONER IN SIND.

*Copy of the Resolution passed by Government under date 24th July 1856, on a Letter from the Acting Commissioner in Sind, No. 237, dated the 11th June 1856, forwarding a Report by Lieutenant TYRWHITT, Deputy Collector and Magistrate of Meerpoor, of the Settlement he has effected in the Omerkote District.*

His Lordship in Council concurs with the Acting Commissioner in considering the settlement made by Lieutenant Tyrwhitt very satisfactory. The principles on which it is founded seem well adapted to the local circumstances of Omerkote, and Government consider that no attempt should be made to introduce a more accurate system until the desultory agriculture of the inhabitants shall have given place to settled habits of regular industry.

2. The financial results of Lieutenant Tyrwhitt's settlement are looked upon by Government as exceedingly favourable, combined, as they are, with evidence of present contentment and the prospect of future advancement. The Acting Commissioner is requested to convey to Lieutenant Tyrwhitt the approbation with which the Governor in Council has noticed his exertions.

3. Government sanction the grants of rent-free lands made to the Patels.

4. The papers adverted to by Colonel Jacob will be printed as a part of the Revenue Selections of this Presidency.

H. YOUNG,  
Officiating Chief Secretary to Government.

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# REVENUE SETTLEMENT OF THE THURR DISTRICTS.

No. 1370 OF 1856.

REVENUE DEPARTMENT.

From the ACTING COMMISSIONER IN SIND,

To the Right Honorable LORD ELPHINSTONE, G.C.H.,

Governor and President in Council, Bombay.

*Dated 3rd June 1856.*

MY LORD,—I have the honour to transmit letters in original as per

No. 464, of 15th December 1855,  
to the Commissioner in Sind.

No. 89, of 3rd March 1856, to  
the Acting Commissioner in Sind.

No. 98, of 8th March 1856, to  
the Acting Commissioner in Sind.

margin, from Lieutenant Shortt, Acting  
Deputy Collector of the Thurr and  
Parkur Districts, reporting the com-  
pletion of the Measurements and Reve-  
nue Settlement in the Desert portion

of his Deputy Collectorate, known as the Thurr.

2. It appears that in March 1853 Lieutenant Raikes, late Deputy  
Collector of these districts, brought

Lieutenant Raikes' General Re-  
port on Thurr and Parkur, No. 67,  
of 17th March 1853, forming ac-  
companiment to Mr. Frere's letter  
to Government No. 480, of 21st  
January 1856.

under the notice of the Commissioner  
the very unsatisfactory state of the then  
revenue management in this portion of  
his charge, and remarked that, under

the circumstances of the country and people, he advocated a system  
which would "place the cultivators on the footing of peasant pro-  
prietors paying an annual quit-rent," and urged that such permanent  
settlements should be undertaken.

3. In a memorandum subsequently supplied by Lieutenant Raikes  
(No. 328, of 13th December 1854), he proposed the following detailed  
scheme.

"23. Adverting to the fourth question on the subject of land

"No. 67 of 1853, dated 17th March, from the Deputy Collector and Magistrate of Thurr and Parkur to the Commissioner in Sind, paragraphs 39 to 56."

tenure, I beg to refer to the letter noted in the margin, and to suggest,—1st, that each field be measured, and a register thereof in the whole Deputy Collectorate be prepared.

"2nd.—That they be subsequently written over to the cultivators respectively in perpetuity, at a quit-rent, liable, however, to resumption in the event of the occupant not paying the quit-rent, being convicted of any crime involving trial before the Deputy Magistrate, or leaving the districts permanently. No rents should be attempted to be levied in famine years.

"24. This arrangement would have the effect of removing the inconveniences of the present assessment system, and giving fixedness to the tenure by which the land is held. As, however, both these points are alluded to at length in the above-quoted letter, it is unnecessary to say more regarding them now.

"25. Supposing the proposed establishments to be sanctioned, there will in future be three Kardars and three Deputies, instead of three of the former and two of the latter, as at present; in addition to which one Mootsuddee would probably be requisite for each Kardarate for one year, to enable each field to be measured and assessed, the assessment being fixed by the Kardar in communication with the petty Chiefs and other respectable landed proprietors, and under the superintendence and orders of the Deputy Collector.

"26. I would propose that each field be measured, and that its size and situation with reference to the Thurr to which it belongs, as well as to other fields or prominent natural features of the country, be carefully recorded, with its name, and owner's or cultivator's name.

"27. The Kardars would of course be able to measure and register many fields themselves; as, however, there is a good deal of current work also, the greater and most laborious portion of the undertaking would devolve on the Mootsuddees entertained for the purpose. Their pay should be, I think, Rs. 35 a month.

"28. It is difficult to say at this moment what other expenses it might be found necessary to incur, for measuring-men, ropes, paper, &c.; it appears to me, however, that Rs. 50 per Kardarate (inclusive of the Mootsuddee's pay, above alluded to) for one year,

would suffice for the additional establishment, or Rs. 1,800 for the whole Deputy Collectorate."

4. Mr. Frere, although not prepared to coincide in some of the Deputy Collector's views, more especially in those having reference to judicial proceedings (proposition No. 2), yet quite agreed with him in considering that a simple and suitable system of revenue management should at once be introduced, in supersession of that which had previously obtained. This latter system was one of annual valuation of the crops in all the holdings ; and as these were widely scattered among the sandhills of the desert, it was not found practicable for the local revenue officers to examine and value the crop of every holding before harvest time. Consequently great delay and uncertainty, combined with much exaction, were experienced in settling each year's revenue.

5. Lieutenant Raikes was instructed, therefore, to give immediate effect to his suggestions for measuring and assessing the lands under notice. To complete this settlement and survey would, it was computed, require an establishment at Rs. 150 per mensem for a period of twelve months, in all Rs. 1,800, and this expenditure was authorised under the general sanction, I apprehend, given to the Commissioner in paragraph 8 of the Government letter No. 1932, of 8th May 1855. The work has, however, been accomplished at the far lower cost of Rs. 1,308-7-6, which amount has been expended in the manner detailed in the Acting Deputy Collector's memorandum now appended, and for which outlay I have the honour of soliciting the sanction of your Lordship in Council.

6. The areas thus brought under survey and settlement are, in their natural characteristics, very similar with those described by Mr. Frere in his Report upon the Narra and Omerkote Districts (No. 62, of 12th February 1855). They consist of a light sandy soil, nowhere rich, and in many places, particularly towards the slopes of their surrounding sandhills, poor, and barely remunerative. They are commonly known as Thullees or fields, each hollow or valley forming one Thullee. The staple produce is bajree ; wheat will not thrive, unless on the fields immediately adjacent to the Runn of Kutch.

7. The population is estimated at 29,700 souls, of whom some 3,000 are merchants, 3,000 Musulman shepherds, and the remaining 23,700, comprising both Hindoos and Musulmans, cultivators or herdsmen. It is generally found that the Rajpoot is the better and

more industrious agriculturist, while the Musulman prefers a pastoral life. As a whole, however, the people may be characterised as emphatically pastoral in their habits. In former years I travelled among and knew them well. They are nomadic by choice, and wander with their flocks and horned cattle as pasturage and water may require. Their wealth consists in their droves, as their main article of export is ghee. The pasturage on their sandhills is highly nutritious, and renders the breed of cattle remarkably fine. It is not easy, therefore, to induce these tribes to fix their attention upon arable pursuits, and a peculiarly simple and lenient description of assessment was evidently required to wean them from their old predatory and roving habits.

8. Accordingly, the plan selected by Mr. Frere was to fix and register the localities of all the fields, to record the titles of the holders, and to demand from every holding a tax so moderate as should admit of its being levied in any but a famine year. These highly desirable objects seem to have been effected by Lieutenant Shortt in a very satisfactory manner, and I venture to hope that your Lordship in Council will approve the details of the settlements, as reported in the Acting Deputy Collector's letter.

9. The assessment has been calculated upon the average price of the staple produced,—bajree,—as this grain has been selling in the cheapest markets of the districts. In the Kardarates of Deepla and Mittee it has been fixed at an equivalent to about one-fourth the gross produce, and in the remaining district of Veerawow one-fifth the gross produce has, in accordance with former practice, been determined upon. The Government return from this latter district is yet further reduced by the fact of the Thakoor of Veerawow receiving the revenues derivable from his own village, besides one-fourth those realised from the district; these privileges having been originally granted to him in compensation for certain dues derivable from a salt lake in the immediate vicinity of his village.

10. The capabilities of the soil do not vary to such a degree as to cause any great difference between the rates levied in any two localities. From an examination of the proposed tax per beega of 1,600 square yards, it appears that in no instance is a higher rate than eight annas suggested, while the average demand upon the entire 89,871 beegas brought under settlement is about three annas.

11. The term of the proposed settlement is ten years,—a period which was suggested by the Commissioner after a personal examina-

tion of the districts ; but here, as in the Deccan, the cultivator will remain at full liberty to throw up old, or to enclose new land, upon giving timely notice,—it is only the Government that is bound down. This boon to the cultivator may be attended with the inconvenience of a fluctuating revenue ; but in a desert tract, where the huts and wells of one year are covered up or removed in the year following, and where the gradual attraction of the population to agriculture is on all accounts a matter of far greater importance than the collection of a few rupees more or less of revenue, this boon seemed especially required. In years of famine, no revenue whatsoever will be demanded.

12. The financial result of the settlement is more satisfactory than might have been anticipated. The statement appended to Lieutenant Shortt's report shows that the annual assessment now recommended will amount to Rs. 16,428-11-3, which sum contrasts very favourably with the realisations of the ten years preceding from the same districts ; for the largest revenue collected in any one of these years has been Rs. 10,527-4-11,—thus showing for the yield under proposed settlement an annual increase of Rs. 5,901-6-4. This increase does not, however, imply that the present assessment has been fixed at rates higher than may be consistent with the objects in view. It is attributable rather to the circumstance that while cultivation has been gradually extending, the land tax has been continually lowered, until reduced to about the value of one-sixth the gross produce ; while, concurrently with this abatement of demand, all sorts of vexatious customs and frontier dues have been abolished.

13. Lieutenant Shortt, proposes that the crops of the current season should be brought under the settlement ; and in the advisability of this measure I concur. The Sunuds or title-deeds will not be issued to the Zemindars until the sanction of Government shall be obtained to the proposed settlement.

14. The arguments adduced in paragraphs 23 to 28 inclusive of the Acting Deputy Collector's report are, I think, sound. It is undoubtedly a main object to extend cultivation in these Thurr Districts, and I would respectfully suggest that the appointment of Patels from year to year, as circumstances may dictate, be left to the discretion of the local officer, who should be empowered to remunerate these village authorities by grants of uncleared land, to be held upon the conditions of clearance, and of good behaviour on the part of the occupants.

15. The question of renewing the grants of Inam lands to Zemindars, alluded to in Lieutenant Shortt's 32nd paragraph, does not require particular notice in this place; neither is it necessary that I should longer claim the attention of your Lordship in Council in reference to districts which have been so recently and ably described by Mr. Frere.

16. The contingent bills as per the Acting Deputy Collector's memorandum will be duly forwarded to the Civil Auditor.

I have the honour to be, &c.

JOHN JACOB, Lieutenant Colonel,  
Acting Commissioner in Sind.

*Commissioner's Office, Kurrachee, 3rd June 1856.*

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No. 464 OF 1855.

FROM THE ACTING DEPUTY COLLECTOR AND MAGISTRATE,  
THURR AND PARKUR,

TO H. B. E. FRERE, Esq.,  
Commissioner in Sind.

*Dated Camp Megpore, 15th December 1855.*

SIR,—I do myself the honour to report the completion of the mea-

Reports completion of the Mea-  
surement of the Fields in Thurr.

surement and assessment of the fields  
of the Thurr Districts, and there now  
only remains the copying of the lists,

which can go on as the settlement proceeds.

2. After the completion of two copies of each field-book, I propose

Intended arrangement for copy-  
ing the Field-books.

discharging the measuring establish-  
ments, and making arrangements to have  
the requisite number of copies made

of the field-books, for which contingent bills will be forwarded as  
heretofore.

3. The total expense of the survey will be considerably within the

Expense of Survey.

amount originally sanctioned by you.

On the completion of the requisite num-  
ber of copies of the field-books, I shall report the total amount  
expended, for your information.

4. As it is a matter of considerable importance, on the introduction of a new system, that it should commence favourably, I have hurried the present report more than I should otherwise have done, if possible to admit of the present year, 1855-56, which has proved a particularly favourable season for the cultivators, being brought under this new assessment, and included in the term of years of the leases proposed to be now granted; and I hope that under press of much other business this will stand my excuse if it should appear to you that I have overlooked anything in the present report, or that it is not so full as you would have desired it; and I venture to solicit as early a reply as you can afford, giving me authority to carry out the settlement as you may direct,—the more so as I propose proceeding into the districts in a few days, giving them as much time as I possibly can, for the purpose, chiefly, of carrying out this important object.

5. In a country the produce of which is entirely dependent on rain, and that very uncertain, I need not say more on the importance of commencing the new system of assessment under favourable auspices: it will be sufficient to say that the monsoon just passed has been more favourable all over the districts than for many years past.

6. To guard against delay, however, in case it should be found impossible to complete its introduction all over the province, the Kardars are now employed in assessing the crops in the usual manner; but I hope, for the success of the undertaking, that this will be needless.

7. To form an opinion as to the amount of the rate it is proposed to levy yearly on the leases, it may be as well that I should state as briefly as possible a few words on the rate at which land has hitherto been held in the Thurr, and the amount Government has been able to realise from the land revenue; and thus I think a more just idea of the rate at which the present settlement should be made will be arrived at.

8. The principal castes in the district may be divided into three great classes, viz. Musulmans, Rajpoots, and Bheels, Kolees, &c. Previous to 1843, when the unsettled state of the district is a matter of notoriety, the Bheels and Kolees were almost the only cultivators



of the soil. The Musulmans and Rajpoots were the possessors of cattle, which formed the staple source of their wealth, and which they could drive about with them wherever they went. The state of the country, infested as it was by cattle-stealers, and marauders of all descriptions,—amongst whose numbers they themselves, in many instances, may be included,—did not hold out inducement to them to settle down to agricultural life, and their tastes were then altogether opposed to it. The Bheels and Kolees had no cattle to be stolen, and nothing to lose by such depredations, consequently the cultivation was almost entirely confined to them.

9. Since then, security of person and property has entirely superseded this state of things, and cultivation has been gradually on the increase. Since 1843, the amount of land under cultivation has been increased fourfold, and this increase may be said to be entirely cultivated by Musulmans and Rajpoots, while the amount cultivated prior to 1843 is still in the hands of Bheels and Kolees much as it then was.

10. That much of this wandering taste remains to this day among the Musulmans and Rajpoots there is no doubt ; but that it is decreasing daily will be deduced from the above fact. These castes depend even now chiefly on their cattle as the means of existence. Many of the smaller owners now possess a field or two in the vicinity of their Thurrs, more for the right it gives them of grazing their cattle on the village lands than as a means of livelihood. These men, therefore, are not entirely dependent on the monsoon for the means of defraying the Government demands on them in a bad season.

11. To a certain extent, however, emigration for a time will always exist amongst the poorer classes, when the total failure of the monsoon obliges them to seek food where it may be had at a cheaper rate.

12. I do not think it will be a matter of much difficulty to arrange a permanent settlement (cash rate) for any number of years you think best.

13. The land in the Thurr is all of the same description, and there are no canals, no irrigation, no variety of crops ; and, lastly, the cultivator of the soil will receive the lease of the land he himself cultivates direct from Government.

Description of Land in the Thurr.

14. Any rights the Raoma, Soda, and Noray Zemindars may have possessed in the time of the Ameers have all been commuted for certain portions of land, which they hold rent-free. In the Mittee Zilla, the amount of land so granted is 8 Santees, in Deepla 6 Santees, and in Veerawow, the town of Veerawow and one-fourth of the net land revenue of the Zilla ; so that it will scarcely be necessary to allude to them further.

15. Under the Ameers the rate of assessment was as follows :—  
 Former Rates of Assessment. Mittee, two-fifths of the whole produce ;  
 Deepla, one-third of ditto ; Veerawow,  
 one-fifth of ditto.

16. The best land by far in the district lies in the Deepla and Ballearee Zillas, along the banks of the Runn, where the sandhills are higher, and the water lies longer, in consequence, in the hollows. Why the assessment here was lighter than in Mittee, where the land is poorer, is difficult to say ; but they were equalised by Captain Duncan about 1846, and the rate since then has been nominally one-third.

Land of the Veerawow Zilla is poor. 17. The Veerawow Zilla is much poorer, and some of it, it is said, will not admit of its being sown yearly.

18. There is only one crop yearly taken from the soil. After the first fall of rain, bajree is sown on the higher ground, and is cut in November or December, by which time much of the water has dried up in the Thullees where wheat is sown. These are almost the only grains grown, and the wheat forms a small portion only of the produce.

19. It has, therefore, only been found necessary, in determining the assessment on each field, to classify them into three different sorts of soil,—  
 New Assessment has been fixed on the merits of each field chiefly. “ Kattec,” or hard ; “ Thullee,” or low land, on which water lies ; and “ Drago,” which is nothing but sand.

20. A field may contain portions of each of those different sorts : these have each been registered, and the field valued at the total of all.  
 A Field may contain several sorts of Land.

21. It is on this account that the settlement has been made more

on the merits of each field than an average on the particular description of land per beega; though this has been also recorded and taken into consideration, and the result for each Kardarate shown elsewhere.

22. The beega by which the present measurements have been made is the same as that of Kutch, which has always obtained in the Thurr, viz. 1,600 square yards, and not 2,500, as elsewhere. It will be necessary to keep this in mind, otherwise the rates per beega may appear far lower than they really are.

23. The results of the labours of the measurers are shown in the statement appended.

Mode of procedure of the Measurers.

24. They have been invariably attended by one or more of the Zemindars of the Zilla, and also, when possible, by the Kardar as well, and any difference of opinion in fixing the amount of assessment has been recorded as shown.

25. The fields have been classified as belonging to their separate villages. In a few cases boundaries are disputed: those have been entered as such, and I hope that the Kardars, when relieved of the yearly assessment, will be able speedily to settle these according to their ancient boundaries.

26. I have also thought it as well to show the amount realised from the different Kardarates for the last ten years, which is given in a separate statement, though, from the want of information as to the amount of land under cultivation, much information, I fear, will not be deducible from it, so as to enable one to arrive at any correct conclusion as to the relative average amount of land revenue hitherto collected to the land under cultivation, which has, as already stated, been steadily on the increase.

27. The amount of land, however, under cultivation last year, is nearly the same as during the present, when the measurements were taken, and will suffice, I think, to give a very fair idea of what the real assessment has been. On comparing these two, it will be seen that last year, which was a very good year, produced in the Mittee Zilla, after deducting remissions, Rs. 4,463. Supposing the same amount of land to be now under cultivation, the

Comparing the weight of the new Assessment with that of former years.

present measurements give Rs. 9,230 for the same land, calculated nominally at the same rate, viz. one-third, showing an increase of Rs. 4,767, or more than double. It is therefore clear, though nominally the assessment hitherto has been one-third, yet, in reality, it has been much less; and at the same time it is evident that Government hitherto has never been able to collect its proper share, from the great facilities for defrauding Government in the Thurr, composed, as it is, of an infinite number of small sandhills, quite undistinguishable to an unpractised eye, and quite bewildering to any but the Native.

28. In the Deepla Zilla alone, where hitherto not more than 1,400 fields or thereabouts have ever been assessed, the present measurement field-books show above 2,800 which have been brought under the present survey. This is the case, also, with all the other Zillas, but not to so great an extent. Of the reasons which have hitherto caused these facilities for fraud, I need say little, as you are well aware of the nature of the country, and the difficulties that the Government revenue officers have to contend with in consequence.

29. From the statement appended, it will be observed how small is the difference of opinion between the Zemindars and the Kardars or Government employés, as to the amount at which each field should be assessed. In the Veerawow district there is none.

30. I have been unable to give the result of the measurements of the Ballearee Zilla in the Deepla statement, to which Kardarate it belongs.

The Ballearee Field-book has not yet been received.

The fields were measured by the Kardar Hureeram, and have been completed; but they have not as yet reached me; and as I am quite uncertain as to when they may do so, I hope I shall be excused sending this report without them, as I consider it of great importance not to lose time in the introduction of the survey assessment.

31. From the other statements it will, therefore, be seen that the

Result of Measurement.

result of the measurements of the fields in Mittee and Deepla, which have been professedly assessed at one-third, or rather under, has been to give a much greater amount of revenue on the same amount of cultivation than what has ever been realised before. In Veerawow, which has been professedly assessed at one-fifth, the total amount assessed under the new measurement is very nearly the same as it was last year.

32. It would appear, therefore, that hitherto the assessment in Mittee and Deepla Districts has been very light,—much lighter than one-third, and probably not more than a fifth or sixth ; and in Veerawow it is very nearly the same.

33. I think it would be impolitic to raise the assessment, therefore, in Mittee and Deepla, to the extent determined by the measurers and Zemindars, which will only tend to unsettle the cultivators, while it appears to be of much greater importance to Government to ensure the tranquillity of this portion of the frontier of Sind than the increase of the revenue of so poor a district.

34. A reduction of the rate of assessment of the Mittee and Deepla Districts to about a fifth will make the yearly revenue much about the same as it was last year. I do not think the Veerawow rate could be lower than it is. The people from this district with whom I have conversed on the subject seem well pleased with the rate of the assessments, and there is no difference of opinion between them and the Zemindars, so far as I have been able as yet to learn.

35. The total of nett revenue for collection for last year (a most favourable one, as has been observed) for the Thurr alone, without Parkur, was Rs. 10,282-3-8.

36. The total of the new assessment for the same, taking Ballearce at Rs. 3,000, may be roughly stated at Rs. 21,000, or more than double ; hence making the assessment doubly heavy, and, therefore, calculated to render the new settlement highly unpopular.

37. In a country so entirely dependent on rain as the Thurr, I would suggest that the cultivators should be relieved of the chance of total failure of the crops in years when no rain falls, or so little as not to admit of the grain being sown.

38. In 1843 Kardars were first sent into the Thurr from the Hyderabad Collectorate, and since then, the following will show how far the monsoon is to be depended upon as regards the Thurr Districts.

39. The year 1843 was one of famine ; the year 1844 was one of famine, locusts having destroyed the entire crops.

40. The year 1845 was one of almost famine also, from the eggs of the locusts remaining in the ground, and coming to maturity with the crops.

41. The year 1845-46 was a year of famine in Thurr.

„ 1846-47 a fair year.

„ 1847-48 a good year.

„ 1848-49 not a good year.

„ 1849-50 a good year.

„ 1850-51 a bad year.

„ 1851-52 a good year.

„ 1852-53 a good year.

„ 1853-54 almost a famine year.

„ 1854-55 a good year.

So that out of the thirteen years, from 1843 up to the present date, seven have been years of famine, or nearly so, from want of rain or other causes.

42. Rain is also at times very partial, and falling in one district when the others have little or none.

43. Regarding the length of time leases should be granted for, I should be glad to be favoured with your opinion. The Mittee Zemindars recom-

Length of Leases.

mended ten years, the Veerawow five, and the Deepla ten ; but these may be modified to any extent you think most advisable. At first there will naturally be a shyness on the part of the cultivator to take the lease for a greater number of years. Unless you consider it better to allow each cultivator to choose the length of his own lease, I think ten years would be well calculated to secure to the cultivator all the benefits of the measure ; but probably this might be modified according to circumstances and the wishes of the inhabitants of the different Zillas.

44. On leases being taken, it would probably be as well to give the lessee a Sunud or writing, stating

Granting Sunuds or Leases to the Cultivators.

the number of fields he holds, the amount of assessment of each, his liabilities to Government, &c. A form of this is enclosed for your approval, should you consider it necessary.

45. I would propose some such rules as the following be promulgated, as those under which the new assessment is to be introduced :—

I. That no cultivator holding a lease of land from Government can be called on for more than the amount specified in his lease for the number of years his lease may run ; after which, it will be

in the power of Government to raise or decrease, as circumstances may seem best.

II. Should any leaseholder wish to give up any portion of the land he holds, before the expiration of his lease, he may do so, provided he gives notice of his intention so to do two months before the sowing season of each year, viz. by the 1st April of each year, when the Kardar can make arrangements to let that portion to any one applying for it.

III. No land tax will be levied in years when no rain may fall, or not sufficient for the sowing of the crops.

IV. Applications for new land to be brought under cultivation to be made to the Kardar by the 1st June of each year, stating distinctly the position and capability of the land applied for, the number of years' lease, and other particulars.

V. The right of cultivating such ground for one, two, or three years, according to the nature of the soil, will be granted as compensation for the trouble or expense of clearing, to be determined by the Kardars, subject to final decision of the Deputy Collector.

VI. The Government revenue will be levied in one or two instalments, as may be found on inquiry to be most beneficial to the cultivator, in the month of (or months of) —.

46. I do not think it will be necessary to give the Patel of each

Regarding the grant of Land free to Patels of Villages, for certain Services.

small Thurr land to secure his co-operation and assistance in the carrying out of the system, and it is probably not your intention that it should be so. The best and most respectable Patels of the neighbourhood might be picked out, and a charge of twenty or thirty Thurrs be given to each; in return for which they would hold a field, or certain portion of land, free from Government, so long as they should satisfactorily perform the duties required of them.

47. On these several points I beg to solicit your instructions, and authority to carry out the assessment, which I shall do my best to effect with the least possible delay.

Requests instructions on the above points.

48. In conclusion, as I am unaware, on the introduction of similar revenue surveys, what view Government have hitherto taken of late grants of shares in the revenue to Chiefs, in

Veerawow Soda Chiefs' share in the Revenue.

compensation for former rights, it seems necessary that I should mention that the Veerawow Soda Chiefs have within a few years been granted a fourth share in the produce of the whole Veerawow Zilla, in compensation for their right to their share in the salt-pans formerly worked near Veerawow, and which have been ordered by Government to be discontinued. I presume similar cases can only be determined on by the merits of each particular case ; but if any change is thought advisable on the introduction of the new system, the present seems to be the proper time to investigate the propriety of doing so.

I have the honour to be, &c.

A. Y. SHORTT,

Actg. Depy. Collector and Magistrate, Thurr and Parkur.

*Acting Deputy Collector and Magistrate's Office,  
Camp Megpore, 15th December 1855.*

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No. —.

*Statement showing the Result of the new Survey and Measurement of the Fields in the Deepda Kardarate, as taken from the Lists lately compiled.*

| Names of Zillas. | No. of Villages. | Total Number of Fields. | Total of Beegas. | Number of Fields alienated. | No. of Beegas of Alienated Fields. | Government Fields. | No. of Beegas of Government Fields. | Revenue fixed by Kardar. | Difference between the Revenue fixed by Kardar & Zemindar. | The remaining |              | Average per Beega. |             |
|------------------|------------------|-------------------------|------------------|-----------------------------|------------------------------------|--------------------|-------------------------------------|--------------------------|--|---------------|--------------|--------------------|-------------|
|                  |                  |                         |                  |                             |                                    |                    |                                     |                          |  | Rs.           | a. p.        | Rs.                | a. p.       |
| Deepda .....     | 112              | 2,261                   | 12,817           | 1,200                       | 107                                | 2,154              | 12,006                              | 4,829                    | 4 0 343  | 2 0           | 4,486        | 2 0                | 0 6 5       |
| Ballearee .....  | ..               | ....                    | .....            | ..                          | ..                                 | ....               | .....                               | .....                    | ....   | ....          | 3,000*       | 0 0                | ....        |
| <b>Total..</b>   | <b>..</b>        | <b>....</b>             | <b>.....</b>     | <b>..</b>                   | <b>....</b>                        | <b>....</b>        | <b>.....</b>                        | <b>.....</b>             | <b>....</b>  | <b>....</b>   | <b>7,486</b> | <b>2 0</b>         | <b>....</b> |

\* This is a rough estimate ; the returns, though completed, have not yet reached me.

A. Y. SHORTT,  
Actg. Depy. Collector and Magistrate, Thurr and Parkur.

STATEMENT  
SHOWING THE  
LAND REVENUE COLLECTED IN THE THURR  
DISTRICTS FOR THE TEN YEARS FROM  
1845-46 to 1854-55.

No.

*Statement showing the Land Revenue collected in the three  
1845-46 to*

| Years.            | DEEPLA KARDARATE. |    |    |            |    |    | MITTEE KARDARATE. |    |    |            |    |    |
|-------------------|-------------------|----|----|------------|----|----|-------------------|----|----|------------|----|----|
|                   | Land Revenue.     |    |    | Remission. |    |    | Land Revenue.     |    |    | Remission. |    |    |
|                   | Rs.               | a. | p. | Rs.        | a. | p. | Rs.               | a. | p. | Rs.        | a. | p. |
| In 1845-46..      | 1,605             | 14 | 5  | ....       |    |    | 1,605             | 14 | 5  | 782        | 6  | 3  |
| 1846-47..         | 1,246             | 3  | 2  | ....       |    |    | 1,246             | 3  | 2  | 1,778      | 9  | 8  |
| 1847-48..         | 5,417             | 13 | 9  | ....       |    |    | 5,417             | 13 | 9  | 2,285      | 1  | 5  |
| 1848-49..         | 4,879             | 13 | 8  | 24         | 0  | 0  | 4,855             | 13 | 8  | 979        | 5  | 5  |
| 1849-50..         | 2,833             | 15 | 7  | 142        | 7  | 8  | 2,691             | 7  | 11 | 4,895      | 10 | 9  |
| 1850-51..         | 2,139             | 11 | 0  | 95         | 9  | 3  | 2,044             | 1  | 9  | 1,231      | 4  | 7  |
| 1851-52..         | 3,300             | 10 | 5  | 126        | 7  | 11 | 3,174             | 2  | 6  | 2,155      | 14 | 2  |
| 1852-53..         | 2,589             | 6  | 1  | 74         | 12 | 10 | 2,514             | 9  | 3  | 2,434      | 12 | 7  |
| 1853-54..         | 549               | 10 | 5  | ....       |    |    | 549               | 4  | 5  | 734        | 6  | 8  |
| 1854-55..         | 2,591             | 13 | 8  | 236        | 7  | 7  | 2,355             | 6  | 1  | 4,999      | 12 | 3  |
| Total. . Rs.      | 27,155            | 0  | 2  | 699        | 13 | 3  | 26,455            | 2  | 11 | 22,277     | 3  | 9  |
| ●<br>Average..Rs. | ....              |    |    | ....       |    |    | 2,645             | 0  | 0  | ....       |    |    |

*Kardarates of the Thurr Districts, for the last Ten Years, from 1854-55.*

| Remaining.  | VEERAWOW.     |             |             | Remarks.   |
|-------------|---------------|-------------|-------------|--|
|             | Land Revenue. | Remission.  | Remaining.  |  |
| Rs. a. p.   | Rs. a. p.     | Rs. a. p.   | Rs. a. p.   |  |
| 782 6 3     | 837 5 3       | ....        | 837 5 3     | } No account of remission is extant for these two years. |
| 1,778 9 8   | 3,802 11 6    | ....        | 3,802 11 6  |  |
| 2,285 1 5   | 2,201 8 3     | 550 6 1     | 1,651 2 2   |  |
| 729 5 5     | 314 14 2      | 94 0 0      | 220 14 2    |  |
| 4,303 13 1  | 5,441 3 6     | 1,909 3 7   | 3,531 15 11 |  |
| 1,163 6 3   | 1,655 5 1     | 589 15 3    | 1,065 5 10  |  |
| 2,007 0 8   | 6,509 13 9    | 2,290 14 11 | 4,218 14 10 |  |
| 2,315 15 6  | 4,426 3 8     | 1,674 15 6  | 2,751 4 2   |  |
| 710 12 1    | 1,937 13 11   | 766 2 0     | 1,171 11 11 |  |
| 4,463 5 9   | 5,530 11 4    | 2,067 3 6   | 3,463 7 10  |  |
| 20,539 12 1 | 32,657 10 5   | 9,942 12 10 | 22,714 13 7 |  |
| 2,053 0 0   | ....          | ....        | 2,271 0 0   |  |

A. Y. SHORTT,  
Actg. Depy. Collector and Magistrate, Thurr and Parkur.

## No. —.

*Statement showing the Result of the new Survey and Measurement of the Fields in the Mittee Kardarate, as taken from the Lists lately compiled.*

| Names of Zillas. | No. of Villages. | Total Number of Fields. | Total of Beegas. | Number of Fields Alienated. | No. of Beegas of Alienated Fields. |       | Government Fields. | No. of Beegas of Government Fields. | Revenue fixed by Kardar. | Difference between the Revenue fixed by Kardar & Zemindar. |    | The remaining Amount. |     | Average per Beega. |       |       |   |   |   |    |   |
|------------------|------------------|-------------------------|------------------|-----------------------------|------------------------------------|-------|--------------------|-------------------------------------|--------------------------|--|----|-----------------------|-----|--------------------|-------|-------|---|---|---|----|---|
|                  |                  |                         |                  |                             | Beegas                             | yds.  |                    |                                     |                          | Rs.  | a. | p.                    | Rs. |                    | a.    | p.    |   |   |   |    |   |
| Mittee .....     | 42               | 1,023                   | 8,673            | 18                          | 187                                | 400   | 1,005              | 8,486                               | 2,443                    | 8  | 0  | 38                    | 12  | 0                  | 2,404 | 12    | 0 | 0 | 4 | 7  |   |
| Islamkote ...    | 116              | 2,207                   | 21,679           | 172                         | 2,217                              | ..    | 2,035              | 19,462                              | 5,117                    | 0  | 0  | 74                    | 7   | 0                  | 5,042 | 9     | 0 | 0 | 4 | 2½ |   |
| Singala ....     | 25               | 559                     | 7,691            | ..                          | ....                               |       | 559                | 7,691                               | 1,670                    | 4  | 0  | 22                    | 4   | 0                  | 1,648 | 0     | 0 | 0 | 3 | 5½ |   |
| Total..          | 183              | 3,789                   | 38,045           | 400                         | 190                                | 2,404 | 3,599              | 35,641                              | ..                       | 9,230  | 12 | 0                     | 135 | 7                  | 0     | 9,095 | 5 | 0 | 0 | 4  | 2 |

A. Y. SHORTT,

Actg. Depy. Collector and Magistrate, Thurr and Parkur.

No. —.

*Statement showing the Result of the new Survey and Measurement of the Fields in the Veerawow  
Zilla, as taken from the Lists lately compiled.*

| Names of Zillas. | No. of Villages. | Total Number<br>of Fields. | Total of Beegas. | Number of<br>Fields Alien-<br>ated. | No. of Beegas<br>of Alienated<br>Fields. | Government<br>Fields. | No. of Beegas<br>of Government<br>Fields. | Revenue fixed<br>by Kardar and<br>Zemindar. |        | Average per<br>Beega. |       |
|------------------|------------------|----------------------------|------------------|-------------------------------------|--|-----------------------|---|---|--------|-----------------------|-------|
|                  |                  |                            |                  |                                     |  |                       |   | Rs.   | a. p.  | Rs.                   | a. p. |
| Veerawow .....   | 100              | 2,957                      | 32,319 927       | 536                                 | 4,767 947                                | 2,421                 | 27,552 380                                | 3,652 6 10                                  | 0 2 1½ |                       |       |
| Peetapore .....  | 3                | 124                        | 1,282 1,182      | ....                                | ....                                     | 124                   | 1,282 1,182                               | 183 13 9                                    | 0 2 3½ |                       |       |
| Total..          | 103              | 3,081                      | 33,602 509       | 536                                 | 4,767 947                                | 2,545                 | 28,834 1,562                              | 3,836 3 7                                   | 0 2 1½ |                       |       |

A. Y. SHORTT,

Actg. Depy. Collector and Magistrate, Thurr and Parkur.

No. —.

*Statement showing the Land Revenue of the Thurr and Parkur Districts for the last Ten Years, viz. from 1845-46 to 1854-55.*

| Years.        | Amount of<br>Gross Revenue. | Amount of<br>Remission. | Net Revenue. | Remarks.   |
|---------------|-----------------------------|-------------------------|--------------|--|
|               | Rs. a. p.                   | Rs. a. p.               | Rs. a. p.    |  |
| In 1845-46 .. | 3,225 9 11                  | ....                    | 3,225 9 11   | } No account of remission is extant for these two years. |
| 1846-47 ..    | 6,827 8 4                   | ....                    | 6,827 8 4    |  |
| 1847-48 ..    | 9,904 7 5                   | 550 6 1                 | 9,354 1 4    |  |
| 1848-49 ..    | 6,174 1 3                   | 368 0 0                 | 5,806 1 3    |  |
| 1849-50 ..    | 13,170 13 10                | 2,643 8 11              | 10,527 4 11  |  |
| 1850-51 ..    | 5,026 4 8                   | 753 6 10                | 4,272 13 10  |  |
| 1851-52 ..    | 11,966 6 4                  | 2,566 4 4               | 9,400 2 0    |  |
| 1852-53 ..    | 9,450 6 4                   | 1,868 9 5               | 7,581 12 11  |  |
| 1853-54 ..    | 3,221 15 0                  | 789 12 7                | 2,432 2 5    |  |
| 1854-55 ..    | 13,122 5 3                  | 2,840 1 7               | 10,282 3 8   |  |
| Total ..      | 82,089 14 4                 | 12,380 1 9              | 69,709 12 7  |  |
| Average.. Rs. | ....                        | ....                    | 6,970 0 0    |  |

A. Y. SHORTT,  
Actg. Depy. Collector and Magistrate, Thurr and Parkur.

કાર્મ

કારડોટ મીડી.  
જુહો એસ્લામ કોટ.  
ગાંમ ફેરડો.

જમીન તથા ખેતરની ઓલખ

| કોડ નંબર | કોડ નંબર | ખેતરનું નામ    | સેક નંબર | ચોરસ ફુટની દસ્તા. |                 |         | જમીનનો માપ. |     |   | કોડ નંબર | કાયમ કરાવના રીયા. |   |   | રીમાર્ક. |
|----------|----------|----------------|----------|-------------------|-----------------|---------|-------------|-----|---|----------|-------------------|---|---|----------|
|          |          |                |          | પૂર્વ.            | દક્ષિણ.         | પશ્ચિમ. | ઉત્તર.      |     |   |          |                   |   |   |          |
| ૧૭૫      | વાહાર.   | ભલવી મોદેવાણી. | ધણીનો.   | કાલો નાં ૧૭૭વાળો  | ચોરીરત-નાનીઝેરી | વાધાનો  | તડખ-મણીહાર. | ૧૮૫ | ૦ | ૧૮૫      | ૪                 | ૦ | ૦ |          |
| ૨૨૨      |          |                |          |                   |                 |         |             |     |   |          |                   |   |   |          |
| ૩૧૪      |          |                |          |                   |                 |         |             |     |   |          |                   |   |   |          |

ઉપર લખાએલી જગો તમને આ કાર્મ પ્રમાણે સરકાર ખાલસાની જમીન ખેડવા સાર આપી છે તે કુદત મુજબ ખેડીઆલાદ કરતાં થયેલી પેદાસ લેઈને પોતાનો ગુજરો ચલાવજો અને દરગાલ ના પૈસા ફરાવ પ્રમાણે કીસ્ત મુજબ સરકારમાં ભરતા જાઓ અને જે શાલમાં વરસાત મુતલબ નહીં થારો તો તે શાલ ના પૈસા તમારા પાસેથી લેવામાં આવશે નહીં શિવાય બિલુ લાગત કંઈ નથી. અને તે જમીન તમારે સુધી આપવી હોય ત્યારે જે મહિનાની તારીખ ૧ સી ના રોજની આગળ કારદારને ખબર દેઈને સરકારના દફતરમાં તે પ્રમાણે દાખલ કરાવજો. તારીખ મહિનો સેને.

A. Y. SHORTT,  
Actg. Depy. Collector and Magistrate, Thurr and Parkur.



No. 89 of 1856.

From the ACTING DEPUTY COLLECTOR AND MAGISTRATE,  
THURR AND PARKUR,  
To the ACTING COMMISSIONER IN SIND.

*Dated Camp Row, 3rd March 1856.*

SIR,—I have the honour to forward a memorandum showing the total expense of the introduction of the new permanent revenue settlement of the Thurr District of this Deputy Collectorate. The amount falls considerably within that sanctioned for the purpose (Mr. Frere's letter No. 3693, dated 15th December 1854, to the Deputy Collector, Thurr and Parkur), which was Rs. 1,800.

2. The above does not include the survey of Parkur, for which a separate sanction of a similar amount was granted (Mr. Frere's letter No. 396, dated 5th February 1855, to the Deputy Collector, Thurr and Parkur), and which has not as yet been commenced, in consequence of the non-receipt of all the instruments indented for, for the purpose.

3. I shall feel much obliged if you will inform me how the amount expended as shown is to be entered in my accounts. I have hitherto debited the contingent bills monthly in my cash accounts, in anticipation of their being countersigned by you for the Civil Auditor, but have been checked for those which have been examined by him. I did myself the honour of addressing you on this subject in my letter No. 473, of 26th December 1855, to which I have not as yet received a reply.

I have the honour to be, &c.

A. Y. SHORTT,

Actg. Depy. Collector and Magistrate, Thurr and Parkur.

*Deputy Collector and Magistrate's Office,  
Camp Row, 3rd March 1856.*

*Memorandum showing the Expense incurred in each Month on account of the Measuring and Assessing Establishment of the Thurr and Parkur Deputy Collectorate.*

4 p

| Names of Months.    | Total of Charges in each Month. |    |    | Remarks.  |
|---------------------|---------------------------------|----|----|---|
|                     | Rs.                             | a. | p. |   |
| March, 1855.....    | 12                              | 2  | 3  | As per Contingent Bill forwarded with Memorandum No. 194, of 14th April 1855. |
| April. ....         | 149                             | 0  | 0  | Ditto ditto ditto   |
| May .....           | 149                             | 0  | 0  | Ditto ditto No. 30, dated 21st June 1855.                                     |
| June .....          | 147                             | 8  | 0  | Ditto ditto No. 42, dated 12th July 1855.                                     |
| July .....          | 146                             | 12 | 10 | Ditto ditto No. 59, dated 4th August 1855.                                    |
| August .....        | 138                             | 8  | 0  | Ditto ditto No. 66, dated 29th ditto.   |
| September.....      | 137                             | 5  | 5  | Ditto ditto No. 85, dated 2nd October 1855.                                   |
| October .....       | 140                             | 0  | 0  | Ditto ditto No. 95, dated 15th ditto.   |
| November.....       | 122                             | 0  | 10 | Ditto ditto No. 111, dated 22nd November 1855.                                |
| December .....      | 74                              | 3  | 2  | Ditto ditto No. 130, dated 27th December 1855.                                |
| January, 1856 ..... | 60                              | 0  | 0  | Ditto ditto No. 139, dated 4th January 1856.                                  |
| February .....      | 31                              | 15 | 0  | Ditto ditto No. 151, dated 2nd February 1856.                                 |
| Total.... Rs.       | 1,308                           | 7  | 6  |   |

A. Y. SHORTT,  
Actg. Depy. Collector and Magistrate, Thurr and Parkur.

No. 98 OF 1856.

From Lieutenant A. Y. SHORTT,  
Actg. Depy. Collector and Magistrate, Thurr and Parkur,  
To Colonel JOHN JACOB, C.B.,  
Acting Commissioner in Sind.

*Dated Camp Jesra, 8th March 1856.*

SIR,—In continuation of my report No. 464, dated 15th December last, and agreeably to the sanction contained in your letter No. 3998, of 27th idem, I do myself the honour to report that I have now carried out the permanent settlement of the whole of the Thurr District of this Deputy Collectorate, subject to your approval and sanction of Government.

2. The result is shown in the statement appended ; and, when compared with the amount realised in the last ten years, shows a large increase over any.

Reporting the completion of the Settlement.  
Result shown in Statement appended.,

3. The amount now fixed as permanent assessment is Rupees 16,428-11-3 : the largest amount realised in any former year is Rs. 10,527-4-11, being for the year 1849-50.

4. The actual amount of revenue, however, for 1855-56, will slightly fall short of this, as a few of the fields in each Zilla have not been sown during the past season, and in including

Actual Amount of Revenue slightly less than shown.

this year in the leases of the new assessment, these cannot be assessed under it, as it was not intimated that the new settlement should include the present year until the harvest was past. Under the old system of estimating the crop these fields would be exempt.

5. There are also a few fields on the boundary of the Omerkote Zilla disputed, and the assessment on some of these, though exhibited in the totals, will be collected by the Omerkote authorities, and the rest under this Deputy Collectorate, until the boundary may be fixed. This would have been the case this year, but that my whole time and attention was necessarily given to the introduction of the settlement. Some new fields, also, have been

Boundary Disputes, and Fields now brought under Cultivation included.

now measured for cultivation next year for the first time. These are also included in the totals. When the sanction is received for the whole, the exact amount can be shown, if required, when the collection of the present year is made. The statement merely shows the financial result of the settlement.

6. The Kardars are now engaged in collecting the revenue as now fixed: this will of course be subject to the requisite sanction to the whole assessment; but as the season is already far advanced, delay would occasion probable loss to Government, and on my receipt of this I shall proceed to furnish the landholders with Sunuds or leases of their land, as approved in the 12th paragraph of your letter, and under the conditions shown in the form for this purpose already forwarded by me for your approval.

7. On completion of this, the settlement may be said to be completed, so far as the Government portion of it is affected.

8. The total amount of revenue will always be liable to fluctuation, as it is left optional with the cultivators at any time to throw up any portion of the land they may hold, on giving timely notice, as well as to bring new land under cultivation.

9. In fixing the amount of the assessment for the Deepla and Mittee Kardarates, I have been guided by the following considerations:—

Causes of fluctuation in the Total Amount of Revenue.  
Mode in which the Settlement has been made in the Mittee and Deepla Kardarates.

1st.—What an average amount of produce for each field in an average year would be in grain.

2nd.—What an average rate of the price of grain for some years back would be; and, converting the produce into money at this rate, have taken a fourth, as suggested by you in the 8th paragraph of your letter under reply, for the Government share, as fixed assessment.

10. Besides this, the merits of each field have been separately considered, and fixed in reference to its local advantages or otherwise.

11. Bajree, being almost the only grain grown, has been taken as the grain on which to calculate the money rate. The price in the Deepla and Mittee Kardarates ranges from 8 annas to Rs. 1-1-0 per Kansa, and 10 annas 6 pies has been taken as a standard in turning the grain into money. An additional

The Rates have been calculated on the average price of Bajree.

advantage is here secured to the cultivator, in having his produce taken at a low estimate by Government, when he will be able to sell it at the market price, which will generally be above that ; and in fields in which wheat is grown he has the further advantage of growing a more expensive grain at the same assessment as the inferior one, thereby remunerating himself for any extra trouble and expense in its cultivation.

12. The number of fields capable of growing wheat is very small, and altogether dependent on the quantity of rain. Such fields are confined chiefly, as stated in my former report, to the Thurrs along the edge of the Runn, where the fields are smaller, and the sandhills surrounding them higher than elsewhere. The water in these lies longer, and, from the steepness of the sandhills, in greater quantities, which accounts for the soil being more productive.

13. The capabilities of the land of the different Zillas of the Kardarates will be well seen from the average rates per beega put upon them, as shown in the statement appended, except in the Veerawow Zilla, where the differences are more striking.

14. In this Zilla the Government share taken is one-fifth. The land here is poorer than in the other Kardarates, being in many Thurrs nothing but sand.

15. The Thakoor of Veerawow has one-fourth share of the revenue of this Zilla, and as the assessment has been determined with his direct assistance (as indeed elsewhere), this would seem to be a guarantee that it is a fair one, as otherwise he would be a loser either way : if the assessment be too light, he is a direct loser in the amount of his share ; if, on the other hand, it is too heavy, he loses indirectly, by the cultivators leaving their Thurrs and going elsewhere. I have therefore altered this as little as possible, but was forced to do so to a small extent ; for the range of the average rates per beega as fixed by the Zemindars was so great as to make it impossible the higher ones could remunerate the cultivators. These ranged from 5 pies a beega to Rs. 2-8-0 ; the latter in a few cases only. In the other Kardarates the highest rate is about 8 annas, and this for land much better than any in this Zilla. I have therefore reduced the rates on those fields that have been assessed at a higher amount than 8 annas to this amount,

and in some few cases have slightly raised some on which manifestly too low rates were fixed. In this Zilla many of the fields are of great extent, up to 200 beegas, or even more ; the soil being of the lightest description—little more than sand. These are uncleared,—that is, large patches of jungle in the fields here and there,—and no water runs into these from adjacent hills, but they are wholly dependent on such rain as falls on their surface. Land of this description will not admit of crops being taken yearly, and, therefore, the assessment will not be in reality so light as it appears. At the same time, were care bestowed on such land, and were it properly cleared, there is little doubt that it would produce far beyond this ; but the cultivators are not prepared for this as yet.

16. The reason of such high rates as above 8 annas and up to Rs. 2-8-0 having been put on some of the land is that possibly last year, in which much rain fell, wheat may have been sown after the bajree, and the produce of this taken as an average ; but this may only occur once in ten years, and, therefore, it is obviously far too high an average to take for that period, and I hope you will approve of my having reduced those.

17. The amount so altered only occasions a difference of Rs. 31. In the statement forwarded with my former report, there was a mistake in the addition of the total of this Zilla, which will account for the apparent anomaly of the present total being greater than the former one, notwithstanding this deduction ; the rest of the settlement of this Zilla has been unaltered.

18. It is of more importance in this Zilla, and particularly in that part of it which forms the boundary with Marwar, that the assessment should be light. Here the facilities for cattle-stealing are very great, and thefts, in consequence, much more frequent, from the protection afforded to thieves by the Marwar Zemindars, and the impunity with which they are almost invariably committed ; from the difficulties of following thieves into foreign territory, and subsequently proving the thefts.

19. That the present assessment is light there can be no doubt, and many of the cultivators are sufficiently civilised to be aware of the benefits they derive from the abolition

Reason of high Rates proposed by the Measurers.

Importance of a light Assessment in this Zilla in particular.

Advantages of the new Settlement.

of customs and frontier duties, &c., as mentioned by you in paragraph 6 of your letter, as also with interference with the reaping and removal of their crops, and demands of persons employed in assessing it; but that there will be complaints at first is equally sure, particularly from the Ballearee and Deepla Zillas, where, hitherto, Government have never been able to collect more than probably half of what was due. The cultivators here have, however, less to complain of, and greater advantages than anywhere else in the district. The land is better, and much more productive, as has been before mentioned, and the averages taken in the same way as elsewhere. Indeed, the complaints I have received of heavy assessment have been almost entirely confined to these two Zillas; and since the permission conveyed in the 8th paragraph of your letter reached me, the whole Zillas have been reduced from the amount they were assessed at by the measurers, viz. from one-third to a fourth. I have also reduced the assessment on many fields which have been complained of, on examination, so that I would be cautious of entertaining future complaints of this nature, without the personal examination of the land by the Kardar or his Deputy to confirm them; but I do not anticipate the necessity of asking your permission to any alterations hereafter.

20. With regard to the 10th paragraph of your letter, in which you leave it to me to judge whether the landholders in years of failure should pay a small sum to maintain their title to the land, as in the Omerkote Thurr, I think the fields are so small that it will scarcely be possible to enforce this without pressing hardly on the poorer cultivators. The average amount of assessment on each field, and also the average number of beegas in each field, in the several Zillas, is shown in the statement appended;—the highest average amount being Rs. 2-8-6, and is in the Ballearee Zilla; the lowest being Rs. 1-7-8, and is in the Peetapore Zilla; and none of the other Zillas exceed an average of Rs. 1-13-11. Some of the assessments on single fields do not exceed 6 annas, and many are assessed at 8 annas, and under. I therefore have thought that, for the present at all events, it will be better to levy nothing at all in years of failure, and hope that, under the circumstances, you will approve my not having promulgated this as one of the rules of the new survey.

21. I have fixed the leases of the present settlement at ten years.

Duration of the present Settlement.

This was the period chosen by the people themselves throughout the district, and it appears to me to be as good a term as could have been fixed on. There can be no doubt of the lightness of the present assessment; and were the cultivators to take advantage of it, they would benefit in proportion: but their natural supineness will, I fear, prevent their doing so for some time. Agriculture here, too, is in its most primitive stage: the generality of the cultivators sow little more than will be sufficient for their own and their families' consumption for the year, and pay the Government share; and it will hardly be believed that, after a good season, some cultivators will not put new seed into their lands, but will trust to sufficient grain for the year's consumption springing up from what may have fallen from the previous year's crop in the field, knowing that under the old system the Government share would press equally, whether the crop was large or small. In ten years they will have ample time to see the working of the new system just introduced, and the benefits they may derive, if they choose to bestow labour and industry upon the land.

22. The fields, as now measured, consist of that portion of land

Possible effects on the now existing amount of Cultivation.

hitherto cultivated: most of them, however, are capable of being extended to any extent, by clearing jungle, &c.; though, as the edges approach the bases of the sandhills with which each field is surrounded, the ground becomes more sandy, and only such grains as gooar, moong, &c. (as yet but little known here) will grow in this, and as the cultivators will be allowed, if they choose (for it would be impossible to prevent them), to enlarge their fields during the term of the present settlement, I think Government may expect at the end of this term to reap some advantage from the present light assessment, and that, therefore, another survey might then be taken; at all events, it will be in the power of Government to do so should it see fit.

23. With regard to the grant of service land free to Patels of villages (paragraph 14 of your letter under reply), I proposed in my former

Appointment of Patels or Teekais.

report to pick out the most respectable men of the district, and to place under them twenty or thirty Thurrs.



in return for which they would hold a field, or certain portion of land, rent-free as long as they should satisfactorily perform the duties required of them.

24. Since visiting the districts, I have found this a much more difficult matter than I anticipated.

25. At present a large proportion of the headmen of villages are related to the Zemindars of the district, whose claims have all been commuted for stipends, land, or other compensation, but who still try their utmost to retain many small rights they formerly exercised, and to keep up their authority as if they were the owners of the soil. The influence they possess, too, is considerable. All the wealthy men in the province are cattle-owners, or allow the cattle of strangers to graze on the lands of their Thurrs, in exchange for which they levy a tax from them, called Puncherec, and who only cultivate land for their private consumption, and that not with their own hands. The principal wealth of the country, therefore, is cattle. Its principal and almost only export is ghee, which is produced without tax or expense, direct or indirect, and, of course, forms a most lucrative trade. Indeed every one but the poorer cultivators possesses more or less cattle ; and this being the case, every hindrance and impediment is put in the way of any one wishing to bring new land under cultivation, or to dig wells,—also to settlers coming from other countries, who bring with them cattle, or are likely to cultivate on their own account,—from the fear that the pasturage for their cattle will be diminished ; and it requires the utmost vigilance on the part of the Deputy Collector and his subordinate officials to counteract this in any degree. The absurdity of these fears will appear from the facts shown by the late measurements, which give the amount of land under cultivation at about 46 square miles, the whole of the remaining portion of the estimated area of the Thurr (viz. 4,500 square miles) being thick jungle of excellent pasturage for camels, and cattle in general. The land it might be possible to bring under cultivation may be estimated at about a sixth of the whole. At present immense tracts of land, particularly in the Islamkote Zilla, are kept without a vestige of cultivation, and without water, merely from this cause. To counteract this, therefore, will be one of the principal objects to be had in view in the appointment of Patels or Teekais.

26. The dissatisfaction, too, evinced by the different castes at having a man of another caste made Patel of their village, and of whose powers they entertain the most exaggerated notions, has induced me to leave the appointment of these until the cultivators have seen the working of the new system. The prevalent conviction all over the district is, that the Patels or Teekais are to collect the revenue for their respective villages from the cultivators, and pay the amount to the Kardars. I have tried to dispossess them of this idea, as being calculated to defeat the object intended by the present survey ; but I fear that until they themselves understand what is required of them, by experience, it will be impossible to convince them.

27. I also find that it will be very desirable that the number of Patels should be more numerous than I formerly proposed : as, for instance, on the most frequented routes through the country, it will be necessary that all the principal villages should have some one to procure supplies for troops and travellers : and on and near the frontiers of Marwar, Sind, and Kutch, it seems also requisite, in case of thefts, and tracks being brought to the villages, that there should be some one in each village to answer such calls.

28. But as this would occasion a great additional expense on the small revenue of the district, were remissions to be granted on fields now possessed by the men to be chosen for this duty, I beg to propose for your consideration, that I be authorised next year to fix the number of these Patels as may be best calculated to carry out the above ends, remunerating them by the grant of a small portion of land now waste, which they may themselves clear and retain rent-free, subject to their good behaviour, as formerly proposed. In this way cultivation will be increased, without loss to the revenue. The number of Patels I have calculated as above will be between two and three hundred.

29. To these, the consideration of having more or less land rent-free will be nothing ; the position and increased dignity being the objects coveted, as well as the dislike to having a man of another caste placed over them.

30. By allowing the present year to elapse without making any change in this part of the present system, I think the cultivators will have time to see that there is no intention of interfering with their present rights or privileges, by the appointment of Teekais, and that it is only meant as a check or security for the Government not being defrauded of its share of the produce. Should you approve of this plan the Patels can be appointed, and their several portions of new land marked out and measured by the Kardars.

31. I have made inquiries as to the most convenient manner and time of collecting the revenue, and find that the best and easiest method for the cultivators will be to allow them to pay it in two instalments, one on the 1st January, and the other on the 1st April of each year ; but it will be optional to pay it at once,—and in the Vcerawow Zilla few will avail themselves of the permission to divide the assessment, but will prefer paying it in one instalment.

32. On the renewal of the Sunuds of the Zemindars which were granted for a period of seven years from the time of the conquest, the land so assigned should be properly marked out and measured. This, however, is at present a matter of minor importance, as I believe none of them cultivate land equal to the amount granted by their Sunuds, and are not likely to increase the quantity they now have under cultivation.

33. The expense of the above settlement has already been reported to you in my letter No. 89, dated 3rd March 1856.

I have the honour to be, &c.

A. Y. SHORTT,

Actg. Depy. Collector and Magistrate, Thurr and Parkur.

*Deputy Collector and Magistrate's Office,  
Camp Jesra, 8th March 1856.*

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*Statement showing the Result of the Assessment of the Thurr District, as settled by the Deputy Collector up to the 29th February 1856, and submitted for the sanction of Government.*

| Names of Zillas.  | Total of Government Fields. | Total of Beegas in Government Fields. | Total Amount of Assessment on Government Fields. | Average Rate per Beega of 1,600 Square Yards. | Average Amount of |       | Average of Beegas in each Field. | Remarks.  |
|---|-----------------------------|---------------------------------------|--|---|-------------------|-------|----------------------------------|-----------|
|   |                             |                                       |  |   | Rs.               | a. p. |                                  |           |
| DEEPLA KARDARATE.. {<br>Balearee...<br>Deepla....<br>Mittee....<br>Islamkote..        | 1,592                       | 13,041                                | 4,032 14 0                                       | 0 4 11  | 2                 | 8 6   | 8                                | 191,589   |
|   | 2,154                       | 12,032½                               | 3,264 8 0  | 0 4 4   | 1                 | 8 3   | 5                                | 586,234   |
|   | 1,006                       | 8,554½                                | 1,523 10 0                                       | 0 2 10½                                       | 1                 | 8 2½  | 8                                | 503,479   |
|   | 2,051                       | 19,716                                | 3,636 8 0  | 0 2 11  | 1                 | 12 4  | 9                                | 6,128,715 |
| MITTEE KARDARATE.. {<br>Wutt....<br>Thurr....   |                             |                                       |  |   |                   |       |                                  |           |
|   |                             |                                       |  |   |                   |       |                                  |           |
| VEERAWOW..... {<br>Singala....<br>Veerawow..<br>Peetapore..                           | 557                         | 7,691½                                | 1,040 9 0  | 0 2 2   | 1                 | 13 11 | 13                               | 809,246   |
|   | 2,421                       | 27,552½                               | 3,663 10 0                                       | 0 2 1½  | 1                 | 8 3   | 11                               | 339,219   |
|   | 124                         | 1,282½                                | 182 14 9   | 0 2 3½  | 1                 | 7 10  | 10                               | 344,959   |
| Deduct one-fourth of Veerawow Zilla, being the share of the Thakoor of Veerawow ..... | ....                        | ....                                  | 17,344 9 9<br>915 14 6                           |   |                   |       |                                  |           |
| Total... Rs.  | 9,005                       | 89,871                                | 16,428 11 3                                      | 0 3 0   | 1                 | 10 6  | 9                                | 0,732,963 |

A. Y. SHORTT,  
Actg. Depy. Collector and Magistrate, Thurr and Parkur.

No. 3324 of 1856.

TERRITORIAL DEPARTMENT, REVENUE.

To the ACTING COMMISSIONER IN SIND.

*Copy of the Resolution passed by Government under date 30th August 1856, on a Letter from the Acting Commissioner in Sind, No. 1370, dated the 3rd June 1856, submitting, with his observations, a Report from Lieutenant SHORTT, Acting Deputy Collector, Thurr and Parkur, of the completion of the Measurements and Revenue Settlement in the Desert Portion of his Deputy Collectorate, known as the Thurr.*

In sanctioning the expenditure of Rs. 1,308-7-6, which has been incurred in effecting the settlement for ten years of the land revenue and assessment in the Thurr District, as proposed by Lieutenant Shortt, Government have much gratification in recording the favourable opinion which they have formed of the manner in which that officer has conducted the duties entrusted to him.

2. The details of the settlement are generally approved by Government, and its introduction during the current year, which is to be calculated as the first of the ten years for which the leases are to be granted, is authorised.

3. The appointment of Patels appears to Government a judicious measure, and should be carried out from year to year, at the discretion of the local officer, as recommended by Colonel Jacob.

(Signed) H. YOUNG,  
Offg. Chief Secretary to Government.

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**P A P E R S**

**REGARDING THE**

**PRESENT CONDITION AND SYSTEM OF**  
**MANAGEMENT**

**OF THE**

**DISTRICTS OF THURR AND PARKUR.**



No. 48c OF 1856.

POLITICAL DEPARTMENT.

From the COMMISSIONER IN SIND,

To the Right Honorable LORD ELPHINSTONE, G.C.H.,  
Governor and President in Council, Bombay.

*Dated 21st January 1856.*

MY LORD,—I have the honour to report on the present condition and system of management of the districts of Thurr and Parkur.

2. Lieutenant Raikes's report (No. 67, of 17th March 1853), of which a copy is enclosed, gives a very full and correct account of the districts referred to, and I will therefore only here state that they comprise an area of about 6,100 square miles, and a population of 44,000 souls, according to a census which I have reason to think much below the truth.

3. Geographically, these districts are nothing more than the southern extremity of the Great Desert, which, from Ferozepoor to the Runn of Kutch, separates the Valley of the Indus from the rest of India.

4. They abut to the west on the south-eastern portion of the Hyderabad Collectorate: the conterminous Hyderabad districts of Jouda, Bhaga-ke-Tanda, and Wallasseer are naturally fertile and were once well cultivated and populous; but physical changes and neglect of canals have led to their being almost deserted; and although improvements now commencing will, it is hoped, restore them to their ancient prosperity, they have hitherto for some generations past formed an almost uninhabited tract, separating the Thurr and Parkur districts from the fertile portions of Lower Sind.

5. To the north, the Thurr is bounded by the Omerkote district of Hyderabad, which is itself a portion of the Great Desert, and in no way distinguishable, save by an artificial line of boundary, from the Thurr itself.

6. To the east, the Thurr is bounded by Marwar and by an arm of the Runn, which separates it from the Pahlunpoor districts of Guzerat.

7. To the south, the Runn separates the Thurr and Parkur districts from Kutch.

8. The districts, thus almost isolated from the fertile, inhabited portions of India, are divided by a marked difference of physical conformation into,—



9. 1st.—The *Thurr*, which consists of a tract of sandhills, similar to those of the rest of the Great Desert, but somewhat more uniform in shape, and enjoying more regular and copious falls of rain. The similarity of these sand ridges in shape to waves of the sea, which strikes every traveller, and the material of which they are composed, generally a fine sand, cohering so slightly as to be easily friable, is apt to produce, in those who know them only by description, impressions regarding them which are not confirmed by personal inspection.

10. The hills are very rarely composed of *moving* sand, and appear to owe their shape rather to violent undulations of the ground, caused by earthquakes or similar subterranean force, than to any action of the wind, which, in the *Thurr*, appears to modify their shape but rarely, and to a very inconsiderable extent.

11. Further north, where there is less rain, hills of blown sand are not unfrequent, though even there it is clearly not the wind which has given to the principal sandhills their general shape.

12. The sandhills of the Southern *Thurr* are well clothed with coarse but nutritious grasses of different species, capable of maintaining their vitality through several seasons of drought. All the hills, when left to themselves, carry a thick undergrowth of brushwood, and though timber trees are rare, and found only where planted near wells, the Desert brushwood of various kinds often attains a very large size.

13. 2nd.—The *Parkur* districts form a kind of peninsula, jutting out into the *Runn* from the south-eastern corner of the *Thurr*. Ranges of hills, composed principally of primitive rocks, here take the place of the sandhills, and the level country between them differs but little from the open portions of Northern Guzerat, from which it is separated by the *Runn*.

14. The western portions of the *Thurr* are principally inhabited by tribes of the same character and origin as are still to be found in *Sind*, differing from them only as cognate races, living in countries of which the physical characteristics are so unlike, would naturally differ. They appear to belong to the same great family of tribes as the *Rajpoot* races, but to have been early and completely converted to Mahomedanism. A few tribes of undoubted *Belooch* origin are found, and are easily distinguished from their neighbours.

15. From *Mittee* south-westward to *Parkur*, the *Soda Rajpoots* are the dominant tribe, a few being found in each village. They generally claim to be lords of the soil, and their conquest of the country about the twelfth century is looked on in *Kutch* as matter of history.

16. They look up to the Rana of Nuggur in Parkur as their local Chief, though all acknowledge the Rana of Omerkote as the titular head of the tribe.

17. Throughout Parkur and the south-western portions of the Thurr, numerous communities of Kooles and Bheels are found, differing little from the same tribes in Marwar and the Myhee Kanta.

18. This is not the place for any attempt at an historical sketch of the revolutions the country has undergone, materials for which are not wanting, though they are often locked up in the traditions of the various tribes which compose the motley population.

19. It is sufficient for present purposes to observe that tradition, and antiquarian remains still extant, join in pointing to a period when there was a strong and united government, under which commerce and agriculture flourished. At that time there can be no doubt that an arm of the sea extended as high as Vecrawow, where the remains of a large town and numerous Jain temples of stone and white marble still show the ancient importance of Paleenuggur or Parcenuggur, known to the Hindoo traders of Mandavee as the cradle of their race, and which appears to have been destroyed by an earthquake.

20. Subsequently, the port was moved about twelve miles further south, to the neighbourhood of Nuggur Parkur; and finally, perhaps in consequence of some convulsion which closed the arm of the sea, the great body of the trading inhabitants migrated to Mandavee, on the Kutch coast.

21. This occurred several centuries ago; but agriculture appears to have flourished up to a much later period.

22. The surface of the Parkur districts, where there are no rivers, and very few perennial springs, is covered with tanks, formed, as in Guzerat, by enclosing natural hollows with earthen bunds. The date of their formation, and of all important repairs, is generally to be ascertained from the books of the bards, the hereditary genealogists of the local Chiefs. Very few of them are now perfect, or in serviceable repair, but they appear to have been in use till within the last century and a half; and this, with other concurrent testimony, goes to prove that the state of anarchy and disorder in which we found the country dates no farther back than the commencement of the last century.

23. Probably here, as elsewhere in India, the decline of the Mogul empire, and the conquests of the Murathas and other similar

powers which rose on its ruins, led to the dissolution of social order in such distant dependencies as Thurr and Parkur, and to the anarchical state of things which we found, when we first became acquainted with the district, as the nest of formidable robber hordes which laid Guzerat and Kutch under contribution within the memory of men still in the Government service.

24. About the same time, or a little earlier, the Talpoor Meers of Sind had been gradually extending their authority eastward : their troops occupied the Thurr and Parkur districts, and they built at an enormous expense several forts in the desert, viz. Islamkote, Mittee, Deepla, Nowakote, Cheylar, Chockra, &c.

25. These strongholds were substantially built of brick and lime, brought from Sind or from places as remote ; and though not constructed entirely according to our modern theories of fortification, from their position, and the remoteness of any water but what they commanded, they really possessed considerable strength, and were regarded by the Ameers, as well as by the inhabitants of the Thurr, as impregnable. Their distance, however, from supplies and reinforcements, was more felt by the Ameers than it would have been by a more regular Government ; and when the inhabitants of the district rose and slew an unpopular Kardar, who had carried his exactions beyond the bounds of their endurance, the Meers vindicated their authority by carrying off the principal Chiefs to Hyderabad, and imprisoning them there ; but from that time to the end of their dynasty they carefully abstained from any interference which was likely to cause serious annoyance to subjects so poor, so turbulent, so distant, and so unable to afford profitable tribute.

26. The Meers' rule seems to have been most unpopular with every class, and is to this day almost universally execrated : probably, at such a distance from head quarters, the petty oppressions and exactions of underlings were even more felt than in Sind itself.

27. The inhabitants of Thurr and Parkur, however, indemnified themselves by preying upon their neighbours in Guzerat, Kutch, and Kattywar. Many officers now in the service can recollect the bands of marauders which, taking their name from the Khosas, a Belooch tribe of the Thurr, who were most active in these expeditions, ravaged Guzerat to within a few miles of Ahmedabad, made successful inroads into Northern Kattywar, and habitually and periodically plundered in Kutch.

28. On several occasions, a regular field force was organised against them, and they were more than once able to boast that, when overtaken by detachments of regular troops, they had successfully beaten off their wearied assailants.

29. No effectual check appears to have been given to their proceedings till a permanent post was established on the northern side of the Runn, at Kaswa, in the Parkur district, where for many years a squadron of the Bombay regular cavalry, and some irregular horse in the service of His Highness the Rao of Kutch, were stationed within the dominions of the Amcers of Sind. Detachments from this post patrolled the shores of the Runn and the adjacent Desert districts ; and as any marauding party must, in order to be successful, cross to the south-eastern side of the Runn, and return with this detachment in their rear, the establishment of the post effectually put a stop to any large predatory expeditions to the southern and eastern shores of the Runn. The lawless inhabitants of the Thurr continued, however, till within these few years, notorious for petty cattle-lifting and highway robbery on a small scale ; and the perfect security of life and property which now exists in the Thurr is still hardly credited by the inhabitants of Kutch and Guzerat, who recollect the district as proverbial for its lawlessness.

30. The inhabitants of Thurr and Parkur attribute this great change less to the Kaswa detachment and its operations than to the personal influence of Captain (now Colonel) Roberts, who at that time commanded the irregular portion of the detachment, and exercised political authority in the districts around it.

31. A complete history of his proceedings would form an instructive chapter in that most interesting portion of future Indian history which will record the gradual civilisation of the wilder parts of India by its English conquerors ; but I fear that very little of what he did will be found on record. He appears to have guided the operations of the detachment with a sagacity and vigour which secured the invincible success of his operations, while he used the influence acquired as a daring sportsman and successful soldier to give to the wretched people about him (who were not at that time British subjects) their first experience of power used for other purposes than tyranny and oppression, and of intelligence directed to protect the right and punish the wrong-doer.

32. On the conquest of Sind, the Thurr appears to have given

very little trouble. The natural strength which it possessed might have made it a formidable refuge for any predatory troops with whom the inhabitants could have sympathised ; but the Ameers appear to have had but few friends in the Thurr, and our rule was recommended to the people as that of the only Government for which they had reason to feel respect or good-will.

33. Much alarm seems to have been at first created by a rumour that they were to be governed from Hyderabad, and by the appearance of some Sindee officials sent to take possession by the Collector. Hyderabad had an evil name, as the prison of some of their Chiefs, and the grave of others. The principal men went in a body to Colonel Roberts, who was then Resident at Bhooj, and begged that they might be allowed to be subject to him.

34. Their request was submitted to the Governor of Sind, and as the Resident at Bhooj was then subordinate to the Government of Sind, the arrangement was one of obvious convenience and good policy ; and Colonel Roberts was able, with his intimate knowledge of localities, and personal acquaintance with all classes, to make settlements which gave them entire satisfaction, and which have rendered the district from that day to this one of the most peaceable and contented under the Government of British India.

35. The principal measures were :—

1st.—To raise from amongst the Khosas and other similar tribes a body of irregular horse, who would discharge all the duties of police.

2nd.—To provide some means of subsistence for the Soda Chiefs, who had been stripped of almost all property and influence by the Ameers. They were made Killedars, with a nominal charge, as commandants of the forts, receiving small stipends for themselves and their followers.

3rd.—The transit duties, which used to be a principal source of revenue and oppression, were abolished, and liberal compensation given to those Chiefs who had shares in the proceeds.

36. It is to be regretted that Colonel Roberts was less solicitous to record than to perfect the settlements from which such excellent results have followed ; and there is very little on the English records, either at Bhooj or in Sind, to show more than the bare terms of each settlement.

37. His brother-in-law, Lieutenant Raikes, who, as Assistant

Political Agent, commanded the Kutch Horse, aided Colonel Roberts in all his duties connected with the Thurr, and ultimately took charge of all the current duties. On Colonel Roberts's departure, he continued under that officer's successor to carry on the whole of the duty, and the charge appears then and has ever since been considered quite distinct from his duties as Assistant Political Agent.

38. Since Colonel Roberts's departure, the Political Agent has always, I believe, declined any responsibility for the Thurr duties, which, under the title of Deputy Collector and Magistrate, Lieutenant Raikes continued to discharge as an office entirely distinct from any appertaining to the Kutch Agency. But although this duty occupied the chief portion of his time, he never received anything in the shape of extra remuneration for it, and, up to the period of his departure to England last year, he never drew anything beyond his pay and allowances as Assistant to the Political Agent in Kutch.

39. The above is, I believe, a correct description of the mode in which the present relation between the Assistant to the Political Agent in Kutch and the Thurr districts has grown up; but it is to be borne in mind that little on the subject is on record, and I have not found any official document authorising the system which has been followed, except a letter from the Governor of Sind, dated June 1844, allowing Colonel Roberts to undertake the charge, and appointing his Assistant a Deputy Collector.

40. For some years past, attention had been attracted to the fact that the expenses of the Thurr and Parkur districts considerably exceeded the income, and that there had been for the last six years an average annual deficit of upwards of Rs. 20,000.\*

\* Vide accompaniments to Lieutenant Raikes's memorandum No. 328, of 14th December 1854, among the enclosures, where the revenue and charges are thus shown:—

| Years.      | Revenue. | Charges. | Deficit. |
|-------------|----------|----------|----------|
|             | Rupces.  | Rupces.  | Rupces.  |
| 1848-49.... | 23,277   | 43,728   | 20,451   |
| 1849-50.... | 35,782   | 45,995   | 10,213   |
| 1850-51.... | 19,059   | 43,228   | 24,169   |
| 1851-52.... | 34,149   | 47,010   | 12,861   |
| 1852-53.... | 24,422   | 45,191   | 20,749   |
| 1853-54.... | 6,515    | 42,794   | 36,279   |
| 1854-55.... | 7,172    | 35,392   | 28,220   |

The frontier customs, which formed the principal portion of the revenue in former years, were abolished in 1852-53.

41. As there was little prospect of increasing the revenue, and no very obvious mode of decreasing the expenses, it was proposed to make the districts over to His Highness the Rao of Kutch, whose family is intimately connected by marriage with the principal Soda Chiefs, and who might undertake the entire management of the district without putting Government to any expense.

42. His Highness's wishes on the subject were consulted, and he expressed his willingness to undertake the charge, provided the districts were made over absolutely to him, with no further control than the British Government would exercise over his proceedings in his hereditary dominions.

43. Before expressing an opinion on this proposition, I deemed it advisable to visit the district, and ascertain, as nearly as possible, the feelings and disposition of the inhabitants. This was effected in the cold season of 1854-55, and I confess I was not a little surprised at the result of the inquiry.

44. The proposition to make Thurr and Parkur over to the Rao of Kutch, and its cause, had become generally known throughout the districts, principally in consequence of a visit made by two persons deputed by His Highness the Rao to examine and report before he made up his own mind on the subject. Long before I broached the subject to the Chiefs and leading men, I was met with various indirect arguments against the measure ; and I found that the general feeling among all classes, high and low, was strongly against it. When they spoke out their opinions about it, they generally commenced with an admission " that the supposed wish of Government to get relieved from so unprofitable a possession was not unreasonable ; that the Rao was an excellent ruler, and that they had great confidence in his governing them with justice,—but that he was mortal, and they had no guarantee for the character of his successor ; that they had been now for some years under the British Government, in the enjoyment of a degree of peace and good government of which the memory of man in their remote corner of the world afforded no precedent,—person and property were more secure than in any of the provinces around, and this was particularly the case in comparison with the neighbouring States of Marwar or Kattywar ; crime of any kind was rare, violent crime almost unknown" ; and they always wound up with an urgent prayer that " Government would leave them as they were under Lieutenant Raikes, and *not sell*

*them* to any one, neither to the Rao of Kutch nor to their own Chiefs collectively, nor to any one of them." On this latter point there seemed no difference of opinion between the Chiefs themselves and the lower orders.

45. The earnestness and unanimity with which their prayer was urged assured me that, even had their request been less reasonable in itself, Government would not refuse to comply with it, and I therefore set myself to consider, in conjunction with Lieutenant Raikes, what could be done towards equalising the revenue and expenditure.

46. With regard to improving the revenue, it should be mentioned that under the Amcers the income of Government, as well as of the petty Chiefs, was almost entirely dependent on town and frontier duties, in consequence of the poverty of the land, the uncertainty of the seasons, and the difficulty of collecting land revenue in so wild a district.

47. The abolition of town duties, which took place in Sind soon after the conquest, was not extended to the Thurr till some years afterwards.

48. This measure very seriously affected many of the Chiefs, who had little to live on except their shares of the duties, and their case having been represented to Government, compensation was granted, half in land and half in money, for six years, subject to revision at the end of that period.

49. I may remark that the effect of the abolition of these duties has been very apparent. It has since been more than once reported by the Deputy Collector, that in seasons which under the old system would have been years of famine, and when all the people would have quitted the country, they have left their families behind, and fed them with imported grain, sent in from the neighbouring provinces, to which a few of the men drove their cattle, instead of the whole tribe being obliged to emigrate bodily, as would have been their only resource while the town duties acted as a heavy tax on importation.

50. Colonel Roberts proposed two substitutes for the revenue thus relinquished—

51. One was, to permit the export of salt from the Mookyee Salt Lake, near Veerawow, levying on the salt a reduced rate of excise.

52. It could not pay the full excise, because salt is naturally produced in numerous similar localities in the Marwar States, the boundary of which is not more than a few koss from Mookyee. But



the abundance and excellence of the natural supply at Mookyee would always give it a preference over the inferior produce of the neighbouring States, on which the petty Chiefs generally levy a small tax.

53. The Mookyee Salt Lake was in former years a source of considerable revenue both to Government and the Soda Chiefs of Veerawow.

54. In the earlier days of the salt excise system, the Chief's share was bought up, and the export of salt prohibited, from an apprehension that it would interfere with the salt of our own pans at Patree and Joonjawarra.

55. From the inquiries I made on the spot, I am convinced that Colonel Roberts and Lieutenant Raikes are right in supposing that the Mookyee salt might be allowed export at a reduced rate of excise, so graduated as not in any way to interfere with the salt of our own pans at Patree or Joonjawarra, and that a considerable revenue might thus be realised. The only parties really benefited by our entire prohibition of export from Mookyee appear to be the owners of pans in the Marwar States to the north-west of Veerawow. These foreign pans supply the Marwar markets, which used to be supplied from Mookyee, and we have given up a profitable source of revenue in the Thurr, without adding to or protecting our own salt revenue in Guzerat.

56. I would therefore recommend that the export of salt from Mookyee be again allowed, at a reduced rate of duty, which might be so arranged by the Deputy Collector, in communication with the Commissioner for Salt and Customs, as to fulfil the conditions indicated in the last paragraph.

57. I anticipate that this measure, if judiciously carried out, would go far to redress the balance of expenditure over receipts.

58. Another measure suggested by Colonel Roberts, with a view to make up for the loss of the town and frontier duties, was to impose an excise on ghee, which is one of the few staples of the Thurr.

59. This appears to me to be a perfectly feasible measure, and could be introduced without any difficulty, and with a certainty of producing a considerable revenue. But it would be a step backwards in finance, and is not a measure I would on any account recommend if it can possibly be avoided.

60. I should prefer, if it were absolutely necessary, a grazing tax, which might be made a profitable source of revenue, without

interfering much with either trade or agriculture; but even this I would rather avoid, if a sufficient revenue can be raised from salt.

61. Some improvement must be looked for from a settlement and better management of the land revenue. It has hitherto been levied by buttai, or division of the actual produce,—a mode oppressive in itself, and open to much abuse. There were no land registers, nor any certainty of tenure. The collections on account of land revenue, during the ten years 1845-46 to 1854-55 inclusive, varied from Rs. 2,432 to Rs. 10,527, and averaged about Rs. 7,000 per annum. Of the thirteen years of our rule, seven were seasons of almost total failure, either from want of rain or from visitations of locusts.

62. In conjunction with Lieutenant Raikes, I arranged for a registration of the fields in the Thurr, which there, as in the Omerkote Desert, are all in fixed localities among the sandhills, and are not liable to change. The landowner's title was to be registered, and a cash assessment fixed at a moderate rate, such as might be levied in any but a famine year, when no revenue can be expected.

63. These measures have been nearly carried out. They will be separately reported at length; and I only refer to them here as they have a material bearing on the prosperity of the district, and I am sanguine that the manner in which the work has been carried out by Lieuts. Raikes and Shortt will meet with your Lordship's approbation.

64. Much may be done indirectly to improve the revenue of the Parkur district, by repairing the numerous ancient tanks which, though rarely affording the means of irrigation, are always of the utmost importance in supplying the people and their cattle with drinking water. On this subject I would beg to refer to the correspondence noted in the margin. It is quite

From Commissioner to Government, No. 44, of 30th January 1855.

From Government, No. 918, dated 2nd March 1855.

From Commissioner to Government, No. 158, dated 30th April 1855.

From Government, No. 2038, dated 17th May 1855.

hopeless to expect anything to be done if we wait for regular plans and estimates. The works are of the simplest description, and of a nature which the people of the country thoroughly understand, and can construct without assistance. I would therefore recommend that a sum of

Rs. 5,000 per annum be placed at the disposal of the Deputy Collector, to be devoted to the repairs of tanks, till the whole are completed.

65. I am not sanguine that the revenue will ever increase so as to make this district a profitable possession ; but it is, I think, well worth our while to pay a sum even larger than that which it now costs, to ensure the perfect content and quiet of a population which, from the character of the people and of the country, the inhabitants might, if discontented and disorderly, prove nearly as troublesome as in former years.

66. At present the district is far from being a useless possession, and I had occasion particularly to notice its value in two different ways :—*1st*, it is a great cattle-breeding country, and the agriculturists of Guzerat, Kutch, and Hyderabad are supplied with a cheap and excellent breed of cattle from a country where, thirty years ago, a large proportion of the cattle had in all probability been stolen from the neighbouring States ; *2nd*, it affords a route for merchandisc, which, at certain seasons of the year, is more directly, and is always safer than any other between Mandavee and Marwar. It is true that this trade comes from Mandavee, a port belonging to a semi-independent State ; but the goods I saw were for the most part English, and had paid duty at Bombay. Some of the Kutch merchants whom I met referred to a valuable consignment of ivory which they were sending without a guard to Joudpoor by this route, because it was the safest open to them, as the best proof they could give of the security of a district, in which none of their fathers would have trusted person or property even if protected by an armed guard.

67. The grants of land in compensation for shares in town and transit duties abolished, should, I think, be confirmed to the Chiefs who now hold them, and to their heirs in perpetuity. They are trifling in amount, and are all that remain to these Chiefs, who formerly, in a position of semi-barbarous independence, extracted in one shape or another from their neighbours, as well as their dependants, a much larger income.

68. The power of these Chiefs for mischief may be small, but they have still much local influence ; and it is, I am of opinion, sound policy to keep them contented.

69. Money allowances, which are not specially guaranteed, may be left to be disposed of from time to time, as incumbents die, and their continuance or stoppage may depend on the circumstances of the time.

70. Lieutenant Raikes anticipates that some reduction of expenditure may be hereafter effected in the pay of Khosa horse and Soda

Killedars, till they are reduced to what is necessary for local police purposes.

71. I do not think it advisable to hurry such reductions, but would draw the special attention of the Deputy Collector to the subject, and leave it to him to make from time to time such further reductions as he thinks can be prudently effected.

72. Those now suggested by him in the annexed memorandum (No. 328, of the 13th December), in which I entirely concur, amount to Rs. 679 per mensem, or Rs. 8,148 per annum; and if the land revenue be improved, as I hope it will be under the settlement now in progress, and even less than I expect be derived from the Salt Lake of Mookyee, the average receipts may be expected fully to equal the current expenditure.

73. I have above described how the charge of the district passed almost imperceptibly from Colonel Roberts into the hands of the Assistant Political Agent, who, as Deputy Collector of Thurr (a designation intended for the Deputy Collector who was to have been stationed at Wanga Bazar, in the Hyderabad district), has for the last eight years conducted the entire duty, without receiving any remuneration for it.

74. This was reasonable only so long as the arrangement was intended to be temporary; but the duty is a permanent and important one, and the man who discharges it should be properly paid for it.

75. I would recommend an allowance of Rs. 400 per mensem in addition to any other pay and emoluments which may be drawn by the officer selected for the duty as "Political Superintendent of the Thurr and Parkur." I would not attach the duty to the appointment of Assistant Political Agent, or to any other office. It requires very peculiar tastes and personal qualifications to discharge it properly, and these requisites may not always be found in the same locality. It is impossible, even if it were desirable, which I do not think it is, that the officer in charge of the Desert should live in it all the year round. It is sufficient that he should visit it every year in the cold weather; and during the hot season, when he cannot remain in it, whether he lives at Mandavee or in the Hyderabad districts is a matter of comparatively little consequence.

76. I had occasion to witness the discomfort and possible risk which might attend a residence in the Thurr and Parkur, even in the cold weather, owing to the want of any kind of shelter. A small

bungalow would obviate this, and sometimes enable the officer in charge to remain in the districts several weeks longer than would be otherwise prudent. It would also be a great comfort and convenience to occasional travellers between Sind or Kutch and Deesa, or Nusseerabad, Neemuch, &c. I would recommend a grant of Rs. 3,000 for this purpose. The locality might be left to be chosen by the Deputy Collector. As every particle of timber and all the artificers will have to be sent from Mandavee, a smaller sum will not suffice.

I have the honour to be, &c.

H. B. E. FRERE,

Commissioner in Sind.

*Commissioner's Office, Kurrachee, 21st January 1856.*

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[Copy.]

No. 67 of 1853.

From Lieutenant S. N. RAIKES,

Depy. Collector and Magistrate, Thurr and Parkur,

To H. B. E. FRERE, Esq.,

Commissioner in Sind.

*Dated Camp Wurnoo, 17th March 1853.*

SIR,—I have the honour to make the following report of the general state of the Thurr and Parkur Deputy Collectorate.

2. A few remarks on the present occasion, in elucidation of the general features of the country comprising the Deputy Collectorate, may not be deemed out of place, and may serve to prevent misconception, arising from the application of common terms to an uncommon country.

3. I will firstly notice the Thurr, and subsequently Parkur, the one having little or no resemblance to the other, though contiguous; and then proceed to detail the relative position of the different Chiefs, and the nature of the land tenure. This latter subject appears deserving of consideration, as the present tenure is capable of many modifications, with every promise of advantage to Government and the Ryots.

4. That portion of the Thurr Dhat, or Little Desert, under my charge, is a strip, as it were, lying on the northern side and along the Runn of Kutch. It is composed of the districts of Deepla and Ballearee, forming the Deepla Kardarate; Mittee and Islamkote that of Mittee; with Veerawow, Peetapore, and Parkur under the Kardar of the latter. Not having been surveyed throughout, it is difficult to say with precision what the exact length and breadth is: the former may probably be 120 and the latter 40 miles. It is bounded on the west and north by the Hyderabad Collectorate; on the eastern frontier is the Marwar State; while Parkur and the Great Runn of Kutch form the southern boundary. The district is one mass of sandhills, which are higher on the western side of the districts than elsewhere. I know not to what else than the waves of a troubled sea to compare them: generally speaking, they run east and west, with their bluff sides to the north. In the eastern portion of the districts, however, the hills are not so high, and, as compared with those of the west, are as the waves of a slight swell at sea are to the billows of the raging tempest, both of which they represent respectively in a remarkable degree.

5. Along the edge of the Runn, water is generally found at from one to two fathoms from the surface. In some places it is a little brackish, but for the most part drinkable. It is obtained by digging temporary wells, at the bottom of which a wooden foundation, representing a wheel, is placed, and the sides of the well built up with wicker-work, to prevent the soil falling in, which, being sandy, it would do if unsupported. The water filters through the sand, and is thus found sweet, while the Natives say that if deep wells are dug the water is brackish. Probably when found below the level of the Runn, though more abundant, it is salt, while the smaller supply obtained in shallow wells is rendered sweet in the course of filtering. In the interior, the depth of the wells varies, corresponding to their distance from the Runn: whenever of any considerable depth they are necessarily built up with burnt bricks, stones not being procurable, and wicker-work too insecure: thus at Ballearee, two miles only inland, water is found at eighteen feet from the surface, while at Mittee and Islamkote, thirty or forty-five miles distant from the Runn, it is found respectively at sixty and eighty yards from the surface.

6. The cultivation is restricted to the patches of tolerably even land to be found between the sandhills, which, as well as such portions

of the valleys as are uncultivated, are covered with grass and stunted bushes. The forage of the Desert is esteemed more nutritious than that of any of the neighbouring provinces, and accounts to a certain extent for the predilection of its inhabitants to depend rather on cattle than cultivation for their livelihood. Another cause, also, of limited cultivation, is the scattered nature of the disposable land rendering it difficult to protect the crops of many fields from injury as well from cattle grazing in the neighbourhood as from birds. The latter in particular commit great depredations, without any possibility of obtaining reimbursement for the damage committed, which can be obtained from the owners in the case of cattle injuring fields of corn.

7. The extremes of heat and cold are greater in their respective seasons in the Desert than in Kutch; while the rainy season, though often said to be more uncertain, appears to correspond pretty generally with that of the latter province. Both are occasionally visited by famines and locusts, though these visitations have been less frequent of late years than formerly. Earthquakes, also, are of not unfrequent occurrence in the Desert: rather a severe shock was experienced in the western portion of the districts in November last, while Parkur was visited by one during my late tour in that neighbourhood; it lasted a few seconds only, and was accompanied by a long rumbling noise, which lasted much longer, passing away eventually in a south-easterly direction.

8. The chief towns or villages in the Desert, together with their populations, are noted below:—

|                 |       |
|-----------------|-------|
| Veerawow .....  | 1,537 |
| Mittee .....    | 2,055 |
| Islamkote ..... | 622   |
| Deepla .....    | 664   |
| Ballearee ..... | 212   |
| Peetapore ..... | 458   |
| Guddra .....    | 228   |

The population of the Desert portion of the Deputy Collectorate is about 29,700, of which 12,000 may be estimated as the number residing in the larger villages; the remainder are scattered over the sandhills in small hamlets or Thurrs,\* consisting of from five to fifty families. The habitations (which are generally fixed on the tops of

\* The word Thurr represents a well or watering-place in the Desert, and is synonymous with the words village or hamlet elsewhere.

the hills) are for the most part made of boughs and bushes, collected in the vicinity, and thatched with grass; in the larger towns more comfortable houses are gradually being constructed. Numbers of these Thurrs, or watering-places, are occasionally uninhabited; that is to say, great numbers of wells have been dug all over the district, all of which have names, and when people find it convenient to live there, the village or hamlet is called by the name of the well. New wells are also constantly being dug, while others are being deserted. These details have been mentioned to account for the occasional trifling increase and decrease of villages in the Desert, as only the inhabited Thurrs are reckoned; and though even a few only are newly inhabited or deserted in a season, it is a matter of widely different importance from the occurrence of a similar circumstance in other districts than those of the Desert.

9. The present number of inhabited villages in the Desert may be stated at 500. With the exception of the larger villages, where Government servants are stationed, the internal economy of the different little villages, or clan communities, is managed by the elders thereof; disputes amongst them are of rare occurrence, and, when they arise, are generally adjusted by arbitration. The population has been stated at 29,700: of whom about 3,000 are merchants; 3,000 Musulman shepherds who move about from one place to another, according to the supply of grass and water for their herds and flocks; the remaining 23,700 may be looked on as the fixed population, who chiefly subsist by cultivation, and comprise the following castes:—

*Hindoos.*

|  |       |        |
|--|-------|--------|
| Soda and other Rajpoots .....                | 5,200 |        |
| Artisans, some Hindoo and some Musulman .... | 1,000 |        |
| Kolees, Bheels, and Dhers .....              | 7,500 |        |
|  | —     | 13,700 |

*Musulmans.*

|  |       |        |
|--|-------|--------|
| Noray and Raoma tribes of the Deepla district ..                   | 2,000 |        |
| Khosas .....   | 1,000 |        |
| Jooraja, Sumaja, Lunja, Oodaja, Soomra, Halla,<br>&c. tribes ..... | 7,000 |        |
|  | —     | 10,000 |

Total . . . 23,700

10. Of these, the most industrious and best cultivators are the



Rajpoots; the Musulmans, as a general rule, have a greater inclination for keeping cattle as a means of livelihood than cultivating land, though of late they have shown a disposition to cultivate more.

11. I now proceed to notice Parkur,\* which is situated south of the eastern portion of the Desert, *i. e.* of the Veerawow district. Its length and breadth are from north to south twenty, and from east to west thirty miles. It differs from the Thurr in every particular: in Parkur there are no sandhills; it is a plain intersected by stony ridges of low hills, with a large mass of high hills ten miles in circumference thrown together, in appearance, at Nuggur Parkur. The district generally resembles Wagur (or the eastern part of Kutch), from which it is only separated by the Runn.

12. There are in Parkur twenty-six villages, containing 10,700 inhabitants. The appearance of the district generally, of the villages, and the houses (though only a few degrees better than those of the Desert), all give one the idea of the existence of greater comfort, general prosperity, and civilisation, than is apparent in the Thurr. The inhabitants consist chiefly of Rajpoots and Koles, and there are about 350 families of merchants. The more populous villages are Nuggur, with a population of 1,767; Barana, 761; Modra, 613; Khamdya, 693; Kusba, 512; and Adygaum, 1,120. With the exception of the merchants, the inhabitants' pursuits are agricultural. When the grain is ripe, it is for the most part collected in grain-yards near the different villages, in contradistinction to the custom obtaining in the Desert, where, owing to the difficulty of conveying it over the sandhills on camels (the only carriage known there), it is picked and prepared for consumption, or the market, on the spot. The result of these various customs is that the cultivators of the Desert live in their fields during the cultivating season till the grain is gathered, whereas in Parkur they reside in the villages, attending to their fields from thence.

13. The products and trade of the Thurr require a few words only. Generally the crops are dependent on rain, though in Parkur irrigation has, to a very limited extent, in seasons of scarcity, been had recourse to. Bajree is the principal grain produced, though fields of jowaree and wheat are occasionally met with, and in Parkur also teel (*gingely*), moog, and gowar are grown to a considerable extent.

\* It forms a promontory, jutting out into the Runn, by which it is surrounded, except on about three miles, where it joins the Veerawow district.

14. The staple commodity is ghee, which in favourable seasons is prepared to a great extent. The merchants of Deepla and Nuggur buy large quantities for exportation to Kutch and Guzerat, while those of Mittee export considerable quantities to Sind Proper.\* The estimated value of ghee exported in 1851-52 to Kutch was Rs. 70,000.† There are no means of ascertaining correctly the value of the exports of the same article to Sind Proper, which, however, as large quantities of ghee are produced in other parts of Sind, may be estimated at much less than the exports to Kutch and Guzerat.

15. Gum and googul are produced to a limited extent in the Thurr, as also in Parkur, and exported to Kutch and Guzerat; a good deal of grain also has been exported to Kutch during the last two seasons.

16. The increased facilities offered to merchants by the abolition of frontier duties in Sind, and the absence of the risk formerly attending all mercantile transactions, has had a great effect in stimulating trade, which is rapidly increasing and extending itself all over the Desert.

17. To place before you in a clear light the present position of the Chiefs of the different districts in the Thurr and Parkur, it is necessary shortly to state the position in which they respectively stood at the conquest with reference to the Government of the Ameers. In doing so the gradual progress towards the complete subjugation of the Desert to order, during the last fifty years, will be apparent.

18. The Ameers appear to have asserted their authority over the southern part of the Desert generally, and over the Mittee and Islamkote districts in particular, about A. D. 1795,‡ and subsequently to have made arrangements for consolidating their power in the Deepla district, on which the Soda Chiefs of that place, preferring exile to persecution, took refuge in Kutch, where they were kindly treated by His Highness the Rao, to whom they were related by marriage. Subsequently, about 1831-32, on the Ameers granting them an annual

\* Sind Proper is meant to represent the Valley of the Indus, in contradistinction to the sandhills and Parkur. The Desert is variously called Thul, Thurr, Dhat, Samrotee, and, though forming a part of Sind, is seldom called by other names than those mentioned.

† This is estimated at the market value of the article.

‡ The ports of Mittee and Islamkote were built by the Ameers about A. D. 1795, respectively.

money payment, they returned to the Desert. So slight, however, was the authority of the Court of Hyderabad over the Desert generally, that predatory incursions into Kutch were of frequent occurrence. Eventually, remonstrances proving unavailing, a British force was despatched into the Desert, in A. D. 1833, to punish the freebooters, which being accomplished, a detachment was stationed in Parkur permanently (*i. e.* it was there till the conquest). Notwithstanding the presence of the outpost in Parkur, the Ameers' revenue officer was murdered there in 1836-37; the generally received cause of this violent proceeding being, that he had intimated the intention of the Ameers to levy a more regular revenue in future, and make some further arrangements for the better administration of the affairs of the Desert.

19. The Ameers resented the insult offered to them in the murder of their officer by sending a force into Parkur and apprehending most of the Chiefs of consequence; and since the power of the Khosa banditti (who generally associated themselves with the Chiefs, particularly in times of difficulty) had been broken by the British force formerly alluded to, the opportunity now offered of making the inhabitants generally feel that they had ceased to be independent, was not lost. From that date, in fact, the Ameers may be considered to have exercised the functions of a governing power over Parkur; thenceforward they levied one-fifth of the produce as the land revenue of Parkur, while in the Mittee and Islamkote districts two-fifths were levied, and one-third in those of Deepla and Ballearee. The Chowan Chief of Bakasir presented a camel annually in lieu of all demands on account of land revenue, &c.

20. At the time of the conquest, the shares of the produce of the land were levied as mentioned above. A diversity, however, in the mode of making the assessment requires to be noticed, as showing the different light in which the Chiefs were regarded in the eastern and western portion of the districts: thus in the Ballearee, Deepla, Mittee, and Islamkote districts each field was assessed by the revenue officers, while in the Veerawow, Peetapore, and Parkur districts the share of the produce was estimated and fixed by the Chiefs and revenue officer, and afterwards collected by the former without the interference of the latter; clearly showing that they had not, up to that time, been brought into the same degree of subordination as the Chiefs of the west were: still there were signs of a gradually

increasing interference in the revenue, as in all other affairs, on behalf of the ruling power. It is needless, however, to enter into further detail to show the various modes in which this increased authority was being exerted.

21. The various progressive stages of subordination to the Court of Hyderabad in which the different Chiefs of districts were found at the conquest, at first rendered the application of the same rules to all somewhat distasteful to the more independent Chiefs of the eastern quarter of the Desert, or perhaps I ought rather to say to those whose independence had only lately been curbed, and who had only of late years been made to feel the weight of the Ameers' authority, and who, consequently, looked at our advent for a realisation of their hopes of being again restored to the position of independent landed proprietors; while the Chiefs of the west, from having been a longer period under the more immediate control of the Ameers' officers, and who had long felt the withering influence of their sway, found relief in the change of masters afforded by the conquest.

22. Having in the preceding paragraphs given a short outline of the general state of affairs in the different districts at the conquest, I will now shortly detail the settlement made for such of the Chiefs of districts and tribes as had enjoyed immunities under the Ameers, or appeared deserving of consideration under our rule. To commence with the Ballearee district, or Raoruki, *i. e.* the land occupied by the Raomas,\* or acknowledging the supremacy of the Raoma Chief, or Urbab, such being his title. This person had formerly received a trifling share of the land revenue of his district, the average annual value of which was shown to be Rs. 175, in which amount he was consequently compensated. Next comes the Deepla district, comprising the Noreki\* and Sodeki, or land occupied by the Norays and Sodas. The Chief or Urbab of the Norays satisfactorily proved that he had formerly received a share of the land revenue, as also of the customs duties of Deepla. His accounts proved an annual average of Rs. 500 from these sources, which amount was accordingly allotted to him as compensation. The Soda Chiefs of Deepla, who formerly received allowances of money and grain from the Ameers, were compensated

\* The Raomas and Norays are Mahomedan tribes, supposed to have come into the Desert from Sind some two hundred years since; the estimated strength of each tribe is 1,000 persons.

in the sum of Rs. 515 annually. Thus the alienated rights, as well as allowances enjoyed by the Chiefs of the Deepla district, were bought up, or compensated, at the conquest, by payments aggregating annually Rs. 1,190.\* The above Chiefs of the Deepla district were subsequently, in 1849, granted permission† to cultivate 10 santees of land rent-free.

23. The Soda Chiefs of Mittee and Islamkote were found to be in the enjoyment of neither pay nor territorial rights : they would appear to have realised a precarious and trifling revenue by accompanying the Kardars in the assessment season, and receiving a Koree‡ a field from such of the cultivators as felt disposed to give it. The latter Chief also received trifling amounts of money, or presents, from the shepherds grazing in the district, as a grazing tax. For some years previous to the conquest, however, the Kardars also levied a grazing tax, more as a perquisite than a source of revenue. It is probable, therefore, that the Chief's receipts on this account were but trifling, for the Kardars are reported to have collected all that came within their grasp with an unsparing hand.

24. Subsequent to the conquest,§ two of the Soda Chiefs of Mittee on Rs. 15 a month each, with twenty-four foot sepoy at Rs. 15 a month, were entertained, to guard the forts of Mittee and Nowakote : the Chief was also granted 4 santees (or ploughs) of land to cultivate, free of taxes or assessment on account of land revenue ; while to the Soda Chief of Islamkote, with twelve foot sepoy on similar pay, was entrusted the custody of the fort of Islamkote. To this latter Chief and his brethren, also, 16 santees of land were granted for free cultivation.

25. In the Islamkote district, also, there were two tribes, the Vusaipotras and Mays, occupying, the former eleven and the latter nineteen Thurrs, or watering-places, free of all taxes : they were

\* No. 27 of 1845, dated 28th October, from Under-Secretary to Government of India with the Governor General, to the Secretary to Government of Sind, sanctioning this allowance.

† Letter from Commissioner in Sind, No. 470 of 1849, dated 6th March, to Political Agent Kutch.

‡ The Koree is the current coin of Kutch, valued at 4 annas and 2½ pies.

§ Letter from Secretary to the Government of Sind to the Political Agent Kutch, No. 1310, dated 20th April 1844, sanctioning entertainment of Soda Killadars and footmen.

accordingly permitted to continue in the occupation of them on the same terms as previous to our rule.

26. The abovementioned grants of money and land were confirmed to the different recipients by deeds or sunuds, dated in 1844, under the signature of His Excellency the late Governor of Sind, for the limited period of seven years. This limit would appear, from the tenor of the correspondence\* on the subject, and the circumstances under which the grants were made, to have been fixed with the view of enabling Government to make such modifications, from time to time, as circumstances might render expedient. At the expiration of the above term of years, the Chiefs and others holding sunuds were informed, agreeably to your instructions,† that no immediate alteration was contemplated in their present privileges, and that the renewal of their sunuds or deeds was under consideration.

27. Of the thirty Thurrs or watering-places, alluded to in the preceding paragraph but one, as having been alienated to the Vusai-potra and May tribes respectively, it is necessary to observe, to prevent misconception from a fluctuation in the revenue and number of alienated villages entered in the annual returns, or referred to in the course of correspondence—

1st. That the deeds conveying the rights now enjoyed to those tribes simply guarantee the free cultivation of as much land as they respectively‡ cultivate; persons of other tribes cultivating within the limits of their Thurrs pay the Government share of the produce the same as elsewhere.

2nd. That only such Thurrs as are inhabited are entered in the returns as alienated; the deserted Thurrs are not noticed: thus last year's returns contained nineteen out of the thirty alienated Thurrs; the remainder are, and have been since the conquest, deserted or uninhabited.

28. I now proceed to notice the settlement made for the Chiefs of Veerawow, Peetapore, and Parkur; it is needless to allude to Bakasir, as the district of that name has been transferred, by the demarkation of the Sind and Marwar boundary, to the Jodhpoor State. The

\* Vide letter No. 2803, dated 21st September 1844, from the Secretary to Government of Sind to the Political Agent Kutch, and former correspondence.

† Contained in letter No. 1653 of 1851, dated 22nd August, from Commissioner in Sind to the Deputy Collector and Magistrate Thurr and Parker.

‡ There is no restriction in the quantity of land cultivated by them.

Chiefs of Veerawow, as well as of the petty district of Peetapore, comprising five hamlets only, and the Chiefs of Parkur (including the Rana, twenty-one in number) received previous to the conquest one-half of the town and transit duties : subsequently, transit duties were abolished, and the Chiefs who had shared therein allotted corresponding portions in the frontier duties as compensation ; and under these arrangements they continued to enjoy one-half of the town and frontier duties of the eastern portion of the Desert, comprising their own districts and villages respectively, till 1848, when town duties were abolished, and the frontier levy assimilated to that in force in other parts of Sind, and an annual money allowance of Rs. 5,463 was then sanctioned as compensation to the Parkur, Veerawow, Peetapore, and Bakasir Zemindars for the loss of their share of the duties. From this amount may now be deducted Rs. 345, being the amount of compensation paid to the Chief of Bakasir previous to this district being transferred to the Jodhpoor State.

29. The Chiefs of Veerawow and Peetapore formerly had no recognised territorial rights, though the collection of the land revenue for the Ameers gave them an opportunity of collecting something for themselves also, and further enabled them to remit the levy on their brethren's fields, as also on those of their dependents, and the artisans who worked for them. A considerable revenue, however, was derived by the Zemindar of Veerawow from a salt lake situated close to his village, and which it was deemed expedient to purchase with the view of preventing the export of that article. This was accomplished by granting a sunud confirming in perpetuity the entire land revenue of the village, and one-fourth of the Government share of the land revenue of the district, to the Chief of Veerawow, while the Chief of Peetapore was offered a few santees or ploughs of land for free cultivation ; he, however, refused to take them, and at present, therefore, enjoys nothing beyond the compensation for the loss of customs duties.

30. In Parkur, the Rana produced deeds under the seal of the Ameers granting him two villages, which were accordingly confirmed to him by a sunud under the signature of the late Governor in Sind. The small village of Mokleeah was similarly granted to the Rana's manager, Ukkay Malday, on his representing that he had under the Ameers' government enjoyed it free of taxes : the sunuds granting these three villages are for the limited term of seven years, as was the case with those formerly alluded to in paragraph 25.

31. In the Parkur district, also, the small village of Boodesir was granted to Soda Juggajee, uncle to the Rana; as, however, it was granted in lieu of an allowance of one rupee per diem paid to him for many years previously by the British Government, and he is now dead, the subject is about to be brought under your especial notice, and does not therefore require further remark here.

32. In the Veerawow district it would appear that some of the Khosas had been in the habit of cultivating land at five Thurrs without paying any taxes; they have consequently been allowed to continue doing so to this day, though there is no specific authority on record for the exercise of the privilege that I can discover; the right, however, is prescriptive, and the number of fields now cultivated by them free is 150; the remainder of the land cultivated by others than Khosas is assessed. It appears to me inexpedient to recommend any interference with this privilege at present; it has already, within the last season or two, been curtailed by disallowing the extension of the privilege to retainers and dependents of Khosas.

33. The abstract of the rights of the Chiefs alluded to in the three preceding paragraphs may be thus summed up. The Veerawow Chief enjoys the land revenue of Veerawow, which he collects himself, as also one-fourth of the land revenue of the district, which is collected by the Government Kardar and paid to him, and Rs. 1,805 as compensation for the loss of his share of town and frontier duties. The Chief of Peetapore enjoys Rs. 107 as compensation for the loss of his share of the customs duties. The Rana of Parkur enjoys the revenue of the two villages of Sowachund and Rampoor, which he collects himself, and Rs. 2,158 as compensation for the loss of his share of the customs duties. Ukka Malday, the Rana's manager, enjoys the revenue of the village of Mokleeah; while the other petty village Thakoors receive compensation for the loss of their share of the customs duties in the amounts noted below:—

|                       |         |
|-----------------------|---------|
| Chief of Barana ..... | Rs. 432 |
| „ Moodra .....        | 190     |
| „ Audeegaum .....     | 136     |
| „ Khurudya .....      | 65      |
| „ Kusba .....         | 56      |
| „ Saboorun .....      | 36      |
| „ Choorya .....       | 36      |
| „ Soekpoor .....      | 27      |



|                         |        |
|-------------------------|--------|
| Chief of Dhingana ..... | Rs. 20 |
| „ Dhrag .....           | 16     |
| „ Khanoda .....         | 10     |
| „ Dheovcera .....       | 5      |
| „ Auralry .....         | 6      |
| „ Sadoolwas .....       | 2      |
| „ Dhunnagaum .....      | 2      |
| „ Parodra .....         | 9      |

34. The rights of some of the Chiefs to levy a grazing tax has already been alluded to; the importance of the subject, however, will, I hope, be a sufficient excuse for my offering a few remarks on it separately, both to show the nature and extent of the Chiefs' right as hitherto acknowledged, as well as the tendency the exercise of it has to retard cultivation.

35. In the reign of the Ameers the Kardars appear to have collected a grazing tax from the shepherds, more as a perquisite than a source of revenue; the landed proprietors did so also in the shape of presents, to the extent the shepherds could afford and felt disposed to bestow. Since the conquest no grazing tax has been levied on account of Government (except a few rupees inadvertently levied in 1844 and subsequently returned), while some of the Chiefs have exercised the right in different degrees, without the extent to which they should be allowed to do so having been in any way defined. In the Deepla and Mittee districts, where there is more cultivation and proportionately less pasturage, shepherds from other provinces are seldom found, and though it is probable that the Chiefs may obtain trifling presents from them when they happen to go there, the rareness of the occurrence prevents inconvenience arising therefrom. In the Islamkote district also the Chief has given no cause of complaint, though he collects what the shepherds agree to give him; when he has occasionally asked for assistance to collect the tax, he has been informed that no aid can be afforded, and that he must only take what is freely given; while shepherds from foreign districts have been prohibited from frequenting Parkur, with the view of preserving sufficient forage for the cattle of the inhabitants, which was formerly sacrificed to the cupidity of the Rana and other petty Thakoors, who encouraged shepherds to frequent the place for the sake of the grazing tax. In the Veerawow district, however, considerable inconvenience is caused on the part of the Chief by the levying of this

tax. The shepherds and others look on him as the original landed proprietor, and appear ever ready to pay reasonably, and to bear a good deal of exaction from the different members of his family, before complaining.

36. It is obviously to the Chief's advantage to encourage the shepherds from neighbouring provinces to frequent his district as much as possible, as he enjoys the whole of the grazing tax, and equally so to retard cultivation as much as possible to obviate the contraction of the pasturage. Agriculture is more congenial to the ideas and pursuits of a fixed population than to the wandering tribes, who move about from one province to another to graze their flocks and herds wherever grass and water are most abundant. In proportion, therefore, to the increase of cultivation and the number of cattle belonging to the inhabitants of the districts must the revenue derived from the grazing tax be diminished, for nothing is levied from the inhabitants of the district while their cattle and the additional cultivation cause a corresponding contraction of pasturage for the shepherds.

37. It is not so much the simple fact of a portion of land having been brought under cultivation, causing in the abstract but a trifling loss of pasturage as compared with the whole district, as the inconvenience arising to the shepherds from having fields scattered amongst the tract of sandhills frequented by their cattle, where it is most difficult to prevent them injuring the standing corn, which threatens, by being a source of constant litigation and expense, to have the effect eventually of retarding shepherds from frequenting the districts; in the same way as their presence now with the Chief's influence is retarding the increase of cultivation. The difficulty of preventing the cattle from injuring the fields may be supposed, where, as is the case in the Desert, they are watered at about 3 p. m. and driven out into the jungle to graze all night in charge of about one man per 100 or 150 head of cattle; shortly after sun-rise they are driven back to the watering-place or Thurr, and kept there during the heat of the day.

38. I have no means of ascertaining what the average amount of revenue from the grazing tax is in the Veerawow district, as it appears to be levied in a most irregular manner; some shepherds give a few rupees, others some ghee, others a bullock, cow, or camel, as the case may be. Hitherto though the right has been recognised, it has been in no way defined, nor does it appear expedient to inter-

fare in the matter, beyond affording redress when complaints are made of the exaction of the Chiefs. As yet the only Chief complained against, who in fact is the only one who levies anything of sufficient consequence to make complaining probable, is the Veerawow Zemindar, and in his district a little inconvenience must arise occasionally from the anomaly of antagonistic influences : eventually, however, the grazing tax may be expected to dwindle away to a mere name as cultivation increases ; in the mean time the greatest probability of maintaining harmony and contentment amongst all parties appears to be in interfering as little as possible in the matter. The grazing tax appears to me in the light of a perquisite : whether or not it would have been better to have discouraged it more from the first is now too late to inquire, the question at present being the course to be pursued for the future, with the view of preventing more important interests suffering. The tax is levied chiefly from the wandering tribes, who must, in the common course of nature, give way to an increasing fixed population ; the exercise of it, therefore, within reasonable bounds, that is as a perquisite subordinate to the more important interests involved in the extension of cultivation and increase of the fixed population, is not calculated to do much harm. The gradual social progress which the society of the Desert is now making, in passing from the anarchy of former times towards subordination and peaceful pursuits, has not yet sufficiently regenerated the Chiefs to enable them to appreciate any arrangement not conducive to their own immediate benefit, and it is therefore probable that the harmony and well-being of the community will be better aided by a tacit acknowledgment of the perquisite than by an interference with it, which would cause great uneasiness amongst those who have from the first been allowed to levy it, and also form grounds for seeking compensation for any loss of revenue that might arise therefrom, which, after the very liberal treatment they have met with, the case does not appear to me to require.

39. I now proceed to notice the land tenure of the Thurr and Par-kur districts, which, together with the system of assessment now in force, is deserving of special attention with the view of being modified. The greater part of the original landed proprietors (or Mool Grassias) are Rajpoots, whose love of a fixed landed tenure is too well known to require remark. It may be convenient, firstly, to show the tenure on which land is now cultivated, and the mode of assess-

ment in force for collecting the land revenue, together with its inconveniences.

40. The Ameers of Sind treated the Desert districts as Khalsa or crown possessions. I presume they are considered therefore to have retained the proprietary right of the land in their own hands; that they did so, moreover, is evidenced by their granting certain lands to different tribes and individuals for free cultivation. At the conquest, therefore, the British Government succeeded to the proprietorship of the soil, without disturbing any of the rights enjoyed by the Chiefs and others at *that date*, whatever they may have possessed previously; this right was exercised in confirming the grants of land formerly made by the Ameers, and adding thereto fresh grants to others who appeared deserving of consideration. How far, however, it may be the intention of Government to recognise the hereditary right of the Ryots to the land they possess and cultivate, is not apparent: the Rajpoots especially would fain look on their land as hereditary; much of it has been in their possession for many generations. At present, however, Government is the proprietor, to whom all the cultivators (not especially exempted) pay a share of the produce. So long as a cultivator does not desert a field it would not of course be taken from him; if, however, from any unforeseen cause, a cultivator is unable in any one season to cultivate what he did the preceding one, he runs the risk of losing the deserted field, as in the absence of any acknowledged right to the land for other purposes than cultivation—in the absence, in fact, of any fixed landed tenure—it would be impossible to allow cultivators to claim anything beyond the quantity of land actually in their possession; otherwise they would continually leave some of the old fields uncultivated to bring fresh land under the plough, with the view of appropriating as much as possible, whether they could cultivate it all or not: while, therefore, there is no chance of a man's fields being taken from him so long as he continues to cultivate it, the bare possibility of losing land from any temporary inability to cultivate it, land that has probably been several generations in his family, is distressing to a Rajpoot, whose greatest delight and pride is a bit of land, large or small as the case may be, that he may look on as his own, and that he may cultivate with a feeling of satisfaction and confidence that it cannot be taken from him.

41. In many parts of the Desert there are tribes living in different hamlets in the same neighbourhood, cultivating land that they and

their forefathers have possessed from time immemorial. In the reign of the Amcers they appear to have excluded interlopers from cultivating in their lands : now, however, they can only expect to retain possession of what they actually cultivate, and that as tenants at will as it were ; for without any fixed tenure, whatever light we look on them in, and whatever intentions we may have of leaving possessors of land undisturbed, they can only consider themselves as tenants at will ; that is, they have no guarantee for undisturbed possession, the absence of which, and their inability to comprehend the principles of our revenue arrangements, generate a feeling of insecurity in the tenure by which they hold the land. A circumstance connected with one of these Rajpoot tribes, may serve to elucidate the pertinacity with which they cling to the soil cultivated by their ancestors. About A. D. 1819-20, consequent on the oppression of the Ameers' officers, the Soda Chiefs of Deepla and a number of Rajpoot families of the Dohot tribe, residing in the same district, sought refuge in Kutch. The Soda Chiefs were subsequently recalled (with one or two exceptions) by the Ameers ; the Dohots however remained in Kutch till 1847 (cultivating land that had been given to them in tenure of service\* by His Highness the Rao), when about twenty families returned to the Desert to cultivate the land formerly in their possession : the remainder are still in Kutch, and the cultivating free of all taxes would, I am informed by some of the chief men amongst them, induce them gladly to return to the Desert, to cultivate and reside in the neighbourhood, where their tribe has been established for many generations, but for the instability of the landed tenure. The payment of the Government share of the produce would be thought nothing of, if the tenure were a permanent one. A Rajpoot's estimate of the value of land in fact corresponds in a great measure to the permanency or otherwise of the tenure by which it is held ; nor is he by any means behind agriculturists of more civilized nations in valuing the inestimable advantages of a permanent tenure.

42. The system of assessment in force in the Thurr and Parkur is thus (as formerly mentioned). The Kardars, accompanied by one or more of the Zemindars of their respective districts, commence the

\* " Polik praja" or tenure of service, signifies that the occupant cultivates the land free, but is liable to be called on for service when the landed proprietor requires it ; he occupies the land during the pleasure only of the landed proprietor, and has, therefore, no saleable or permanent right in the soil.

assessment about October of each year. Every field is inspected, and the produce thereof estimated ; the Government share is then fixed, and, after the assessment of the whole Kardarate is concluded, the Government share of the produce is converted into money at the market price of grain at the time, and collected. As, however, the fields are much scattered, and the labour of traversing up and down the sand-hills very great for man and beast, the assessment duties are unavoidably prolonged during three and even four months. It is of course impossible to keep the corn standing till assessed ; the cultivators are therefore allowed to gather\* it in when ripe, and thus some of the fields are assessed with the standing corn in them at the commencement of the assessment season, while others are assessed after the corn is gathered in, and others again towards the close of the season are assessed by the standing stalks alone, the grain having been both gathered in and consumed or disposed of.

43. By this system, theoretically perhaps the most fair that could be devised if the fields could all be assessed as soon as ripe, many of the cultivators of the Desert are kept in suspense as to the amount that their fields will be assessed at, till they have either consumed or disposed of the produce ; so that let never so exorbitant an assessment be made, no means are at hand for refuting the justness of the levy, or convincing the assessors that they are exacting an undue share of the produce. It may be urged that all the cultivators should be obliged to keep the grain, till assessed, in the fields where it is usually prepared in the Desert ; and this is done as far as it can be. It is, however, hopeless to expect that poor people will keep the produce of their fields for two or three months till the Kardar can assess it : firstly, because they would have to remain idle watching it all that time ; secondly, because they would in the mean time be obliged to purchase grain for consumption while their own was lying idle. In Parkur even, where the grain is collected in grain-yards close to the villages, and ordered to <sup>be</sup> kept untouched, it is found impossible to prevent the cultivators taking portions of it away for consumption before it is assessed.

44. Another serious objection in the present system of assessment, is the impossibility of obtaining anything beyond an approximation to

\* Picking off the heads of the grain is the usual mode of gathering in the corn in the Desert, leaving the stalks standing ; while in Parkur it is usually cut and carted to the grain-yards close to the village.

an equal levy, if even that can be obtained. The case of over-assessment in the Deepla district, brought to your notice in the letter No. 93 of 1852, dated 15th May, to the Commissioner in Sind, is evidence of the objections practically to the present system, inasmuch as that any system for the assessment of the land revenue that admits of deviations from a given standard, corresponding to the caprice or variations in the capacities of the different Native Revenue Officers, cannot be expected to give satisfaction to the agriculturists or to elicit their confidence, both of which are more or less indispensable to stimulate agriculture.

45. The assessment for the present season commenced in October last, and is only lately concluded. The difficulty of making a proper assessment, and the chances of an unequal levy being made after such a lapse of time, will be obvious. Formerly, that is up to 1849, the assessment duties were generally concluded by the end of December or beginning of January; the increased time now required to accomplish those duties may be attributed to increased cultivation, as well as to the Kardars being obliged to be much more particular in visiting the different fields, and reporting the details of their proceedings now than formerly, as increased recorded information enables greater checks to be brought to bear on them and their transactions generally.

46. In alluding to this subject in 1850, I ventured to suggest a fixed assessment in lieu of each field being visited annually, with the view of relieving the cultivators from the inconveniences of delay in having their fields assessed, as also of saving the assessors the great labour now requisite to effect the assessment of the different Kardarates. On that occasion, however, the landed tenure was not mentioned, which further experience shows to be of far greater importance than the assessment itself.

47. There is only one Native Revenue Officer in the Thurr and Parkur who has had any experience in revenue matters there, viz. the Kardar of Nuggur Parkur, who has filled the situation he now holds with great credit since 1844. On speaking to him regarding a fixed assessment, he urged as objections the difficulty of adjusting the levy without each field being first measured; secondly, that numbers of fields are cultivated and then left fallow, while fresh land is brought under cultivation and used till that previously relinquished has recovered from its exhaustion.

48. There would doubtless be some difficulty, from the causes just mentioned, as also from a general deficiency of knowledge of the size, quality of land, and other particulars of each field ; on the other hand, a permanent land tenure, with a fixed assessment or quit-rent, appears well calculated to improve, and, as far as possible, redeem the Desert from what it now is. If land were granted to Rajpoots, for instance, at a quit-rent, they would assuredly take a greater interest in it ; their energies would be called forth for the improvement of what they would consider their own, in proportion to the permanency of the tenure. At present there is an entire absence of all stimulus to exertion.

49. What appears requisite for, and suitable to the class of persons of whom I am speaking, is an assessment system which shall, as far as possible, place the cultivators on the footing of peasant proprietors, paying an annual quit-rent for as much land as each family can cultivate. Modifications in the amount of the quit-rent might be made periodically, or the right of doing so, if requisite, reserved, without interfering with the permanency of the tenure by which the land is held.

50. Wherever tribes or families have cultivated land for many years, or even for shorter periods, the recognition of their right to continue to do so, at a quit-rent, revisable periodically, as circumstances may render expedient, appears to me desirable, as a stimulus to industry, and the sure means of increasing and improving cultivation. All that Government would appear to require is the payment of a given share of the produce ; it matters little, whether such be levied as a quit-rent, so far as the interests of the State are concerned, or otherwise, while it makes a most material difference to the cultivator whether he holds his land free from all the interferences and petty annoyances inseparable from the present system or not.

51. I would not be understood to advocate the recognition of the rights of the present occupants of such land as has been cultivated in the same tribe or family for many generations simply from its having been handed down to them as hereditary, as this would tend to revive obsolete and intricate claims ; but rather to recommend that present occupation should be considered a sufficient title on which to confirm to occupants the possession of the land now cultivated by them. Owing to the scantiness of the population in the Desert, land is often cultivated and again left waste. If, however, a cultivator



had fields that he could call his own, and had to pay a quit-rent on all land written over to him whether cultivated or not, he would hardly incur the extra expense for the sake of the difference between the crop of an old and new field, while many of the more respectable cultivators would exert themselves with the view of obtaining more land, bettering their prospects, and being looked on as petty proprietors.

52. At present there is nothing to bind the cultivator to the soil ; there is a total absence of all stimulus to exertion beyond the wish to grow a sufficient quantity of corn for a few months' consumption with the least practicable amount of trouble ; while the inconveniences of the assessment system make agricultural pursuits the source of numerous petty annoyances. This state of things, which has existed for many years past, may be partly accounted for by the remote situation of the Desert and Parkur districts with reference to the seat of the Amceers' Government, and the fact of the administration of the districts having been left to Kardars, who appear to have paid small regard to the rights and well-being of individuals.

53. The agricultural population would look on the amount of the quit-rent as a very secondary consideration when compared with the importance of fixedness of tenure. There may, however, be objections to granting land in perpetuity, though the object of retaining a right over it, which must be purchased by withholding the great stimulus to exertion on the part of the cultivators, is not apparent ; and provided the quit-rent were liable to periodical modifications, without interfering with the tenure, Government would always possess as great a command over it as is requisite for financial purposes. The interests of Government and the Ryot are obviously identical ; the more, therefore, the latter can be made independent, and raised in the social scale, with a due regard to the interests of the former, the better must it be for both parties.

54. The difficulties of making a permanent settlement—great as they doubtless are, in the absence of even a map of the districts—can hardly be deemed sufficient reason for not commencing it ; for if all improvement in this department be postponed till the Desert has been surveyed, &c., the delay may be indefinite ; and notwithstanding the nature and remoteness of the locality, there are many tribes and individuals who, looking on it as their home, would be found reluctant to change it for the more fertile and favoured provinces of Hindoostan.

55. It would, perhaps, be deemed premature, on the present occasion, to enter into any details of the mode in which I would propose to work out a change in the present revenue system of the Desert. I will therefore merely add, that should the principle now advocated meet with your approval, I would suggest that the land (the fields being named, and the details of position, size, &c. duly recorded) at present cultivated by some of the most industrious of the Rajpoots of the Deeppla district and Parkur, should be written over to them to cultivate in perpetuity, at a quit-rent fixed for five years, corresponding in amount to the average receipts of the past five years, exclusive of famines, in which seasons I conceive nothing should be levied. The proposed means for measuring the different fields, and erecting land-marks and other details can, if requisite, be submitted for your consideration hereafter.

56. In concluding my remarks on the landed tenure of the Thurr and Parkur, it may be as well to observe, that the subject has been prominently forced on my notice of late by conversation with some of the more respectable inhabitants of the Desert, and also by a comparison of the tenure by which land is held there and here (in Wagur, on the eastern part of Kutch), where investigations into a variety of territorial claims amongst the Chiefs, and other inhabitants of all classes, has clearly demonstrated the inestimable value attached to permanent possession, and whence the cause, to a certain extent, of the difference in the present estimated value of the land comprising the two provinces, divided only by the Runn of Kutch; for while Kutch is probably, on the whole, the more fertile of the two, the land in many parts of the Thurr and Parkur districts is by no means wanting in fertility: thus in the Ballearee district, and in Parkur also, it is no uncommon thing to gather two crops from the same field in one season, and sometimes three even are gathered.

57. The revenue returns of the past year have already placed before you the financial state of the Deputy Collectorate during the year 1851-52; in future the instructions contained in paragraphs 4 and 7 of Government letter No. 11751, of 18th December 1851, copy of which was received with your endorsement of the 8th November 1852, No. 2815, shall be duly attended to in transmitting the annual returns. As, however, the late abolition of frontier duties in Sind will cause a much larger deficiency in the revenue of the Desert districts, already insufficient to meet the disbursements, I beg to be

allowed to notice shortly the result, in a pecuniary point of view, of the administration of the Desert districts during the past four years, as compared with what may be anticipated for the future.

58. The gross revenue during the last four years gives the following result :—

| Sources of Revenue                        | 1848-49. | 1849-50. | 1850-51. | 1851-52. |
|---|----------|----------|----------|----------|
|   | Rupees.  | Rupees.  | Rupees.  | Rupees.  |
| Land Revenue . . . . .                    | 6,217    | 21,843   | 7,391    | 21,736   |
| Customs . . . . .                         | 16,784   | 10,276   | 11,252   | 11,610   |
| Judicial Receipts and Unclaimed Property. | 246      | 663      | 413      | 803      |
| Total ..                                  | 23,277   | 33,782   | 19,059   | 34,149   |

59. The pay of revenue establishments, compensation to Chiefs, &c. is as noted below :—

| Items.   | 1848-49. | 1849-50. | 1850-51. | 1851-52. |
|--|----------|----------|----------|----------|
|  | Rupees.  | Rupees.  | Rupees.  | Rupees.  |
| Pay of Revenue Establishment . . . . .                                       | 4,656    | 4,556    | 4,713    | 5,213    |
| Contingencies . . . . .  | 699      | 810      | 591      | 820      |
| Allowances to Chiefs of Deepla. . . . .                                      | 1,190    | 1,190    | 1,190    | 1,190    |
| Remissions. . . . .  | 2,150    | 4,045    | 988      | 4,148    |
| Compensation to Parkur Zemindars for }<br>loss of Customs Duties . . . . . } | 4,097    | 5,463    | 5,463    | 5,118    |
| Police. . . . .  | 30,936   | 29,931   | 30,283   | 30,521   |
| Total. : . .   | 43,728   | 45,995   | 43,228   | 47,010   |

Leaving Government a loser in the following amounts :—

|                             | 1848-49. | 1849-50. | 1850-51. | 1851-52. |
|-----------------------------|----------|----------|----------|----------|
|                             | Rs.      | Rs.      | Rs.      | Rs.      |
| Loss to Government. . . . . | 20,451   | 10,213   | 24,169   | 12,861   |

Thus showing an annual loss of Rs. 16,923. Now, however, that the abolition of the frontier duties will cause an estimated decrease in the revenue of Rs. 11,000 per annum, the annual deficit for future years

will be correspondingly increased, and may be estimated at about Rs. 27,923 ; that is, supposing the present rate of expenditure in the Police department to be continued. Proposed reductions, however, in the Police expenses, aggregating Rs. 10,500 annually, have been submitted for your consideration, and, if sanctioned, will reduce the estimated annual deficit of revenue to about Rs. 17,423. This estimate, it will be observed, is deduced from the figures above ; as, however, the land revenue fluctuates very much, it must only be considered as applicable to a term of years.

60. I beg to be allowed this opportunity of offering the following explanation with reference to the 12th paragraph of Government letter No. 195 of 1853, dated 12th January last, copy of which was received with your endorsement No. 210 of 1853, dated 29th January, to the Deputy Collector and Magistrate Thurr and Parkur. The compensation to the Parkur Zemindars was sanctioned in Government letter No. 1811, of the 9th March 1850, to the address of the Commissioner in Sind, and took effect from the date of the abolition of the town and remodifications of the frontier duties, viz. the 1st August 1848. Previous, however, to the receipt of this sanction, an advance of Rs. 2,000 was made to the claimants for compensation under instructions from your predecessor (letter No. 464 of 1849, dated 6th March, to the Officiating Political Agent in Kutch), and distributed in March and April 1849. Subsequently, on the receipt of the sanction above quoted, the balance of the compensation for 1848-49, amounting to Rs. 2,097, was disbursed in July 1850, which, with the Rs. 2,000 previously advanced, made up Rs. 4,097, being the amount of compensations due from 1st August 1848 to 31st April 1849. Again, in March 1851, the compensation due for 1849-50 was paid ; thus making the amount brought to account on this score, greater in 1850-51 than in the succeeding year, though the charge remained the same in both years.

61. The gratifying state of tranquillity and increased security of person and property prevailing in the Desert has already been brought to your notice in the letter No. 43 of 1853, dated 17th February, to the Commissioner in Sind. Camel-stealing is at present the chief crime, and this will eventually, I trust, be more effectually curbed, as the vigilance of the Police, and assistance of the inhabitants generally, can be brought to bear on the subject.

62. In conclusion, I beg to apologise for the delay that has

taken place in forwarding this report, which has been caused by my time having been much occupied of late with investigations, &c. in Wagur.

I have the honour to be, &c.

(Signed) S. N. RAIKES,

Deputy Collector and Magistrate, Thurr and Parkur.

*Deputy Collector and Magistrate's Office, Kutch Districts,  
Camp Wurnoo, 17th March 1853.*

(True copy)

M. J. M. STEWART,

Assistant Commissioner.

A.

*Statement showing the present Monthly Establishments which have been employed in Measuring, Assessing, and Registering each Field in the Thurr and Parkur Deputy Collectorate.*

|  |        |   |    |     |
|--|--------|---|----|-----|
| Amount of pay of one Mootsudee employed for measuring and registering fields at Nuggur Parkur .. . . . | Rs. 35 | 0 | 0  |     |
| Extra allowances to 1 footmen for assisting the above Mootsudee, at 1½ Rupee each per month .. . . .   | 6      | 0 | 0  |     |
|  |        |   | 41 | 0 0 |
| Pay to two Mootsudees at Mittee, one at 35 and the other at 20 Rupees per month .. . . .               | 55     | 0 | 0  |     |
| Extra allowances to 6 footmen at 1½ Rupee each per month. . . . .                                      | 9      | 0 | 0  |     |
|  |        |   | 64 | 0 0 |
| Pay of one Mootsudee at Deepla .. . . .  | 35     | 0 | 0  |     |
| Extra allowances to 6 footmen at 1½ Rupee each per month. . . . .                                      | 9      | 0 | 0  |     |
|  |        |   | 44 | 0 0 |
| Total . . . Co.'s Rupees   | 149    | 0 | 0  |     |

(Signed) A. Y. SHORTT,

Actg. Depy. Collector and Magistrate, Thurr and Parkur.

*Deputy Collector and Magistrate's Office,  
Bhooj, 14th June 1855.*

(True copy)

M. J. M. STEWART,

Assistant Commissioner.

Copy.]

MEMO.—No. 328 OF 1854.

If it be deemed expedient to continue the present arrangements for the conduct of the duties of the Thurr and Parkur districts, I would suggest that the charge should devolve as a separate one on the Assistant Political Agent in Kutch.

2. Formerly, when the Thurr and Parkur districts were first placed under the Political Agent in Kutch, it was treated more as a political charge; that is, there was as little interference as possible with the people of the districts; all the trials were submitted to the Political Agent as a Collector and Magistrate in Sind, and by him confirmed, or submitted to higher authority, according to circumstances.

3. The Assistant Political Agent, as Deputy Collector and Magistrate, had one Guzerathee writer to conduct the correspondence with the Kardars; while the accounts of the districts, the returns of which were few, were prepared in English by one of the Political Agency writers, and forwarded by the Political Agent to the Account department.

4. In 1847 (when I had the honour of succeeding to the charge of the office) a second Guzerathee writer was sanctioned for the Deputy Collector, while an English writer was detached from the Agency especially for the Deputy Collector's Office.

5. The current work of the districts gradually devolved more and more on the Deputy Collector, though the correspondence and accounts passed through the Agency.

6. In 1849 Colonel Roberts was succeeded in Kutch by Mr. Ogilvy, who considered the Thurr and Parkur charge as a separate one, and treated it as such.

7. In 1851 Major Jacob was appointed Political Agent in Kutch. He declined having the Deputy Collectorate under him; and since then it has been entirely under my charge, without, however, any allowances for the work and responsibility,—until last year, indeed, I was unable to visit the districts on the same terms as I did those of Kutch, where travelling allowance is granted.

8. Owing to the gradual increase of work, both as regards correspondence with the Native revenue officers, police and judicial

business, as well as in the English as Guzerathee departments, two English writers and a third Guzerathee one were sanctioned for the Deputy Collector's Office, the former in 1850 and the latter in 1851, thus making up the Deputy Collector's establishment to three Guzerathee and two English writers. The whole establishment, however, is only temporarily sanctioned.

9. The above details have been mentioned to show how the duties of the Desert Collectorate have been conducted since the transfer of the districts to Kutch, viz. at first chiefly by the Political Agent in Kutch, subsequently by the Assistant Political Agent as a Deputy Collector and Magistrate, and since 1851 by the Deputy Collector and Magistrate alone, under the direct orders of the Commissioner in Sind.

10. Owing to the peculiarities of the charge, pointed out in the letter noted in the margin, the Judicial system introduced into Sind was, under the sanction of the Commissioner's letter No. 160 of 1852, dated 19th July, from Deputy Collector and Magistrate Thurr and Parkur, to the Commissioner in Sind. No. 958, of 17th September 1852, only partially made applicable to the Thurr and Parkur districts.

11. In the conduct of judicial proceedings, the Deputy Magistrate exercises the powers of a Magistrate, *i. e.* he tries cases of life and death importance, and sentences to one year's imprisonment (vide letter No. 80 of 1849, dated 23rd April, from Commissioner in Sind), without submitting the proceedings for confirmation.

12. The system of conducting judicial business has been alluded to, as the designation of Deputy Magistrate, though applicable so long as the charge was under the Political Agent, appears paradoxical now.

13. Regarding the modifications that I would propose in the establishments, I beg to annex a form showing, as desired, the present and proposed establishment in all departments.

14. The Deputy Collector's establishment is slightly increased as follows :—

The present sanctioned pay of the English writers is 50 and 30 rupees respectively. It has been found very difficult, however, to obtain the services of qualified persons for the latter sum ; I therefore propose that they should get 45 and 40 rupees respectively. A memorandum of the work in the English department formed accompaniment to my letter No. 98, of 1st September 1851, from which you will observe that the returns are both numerous and voluminous.

15. In the Native department I have proposed an addition of 5 rupees to the Native Accountant's pay, to place him on an equality as regards pay with the Kardars of Nuggur and Mittee. The examination of all the Kardars' accounts—all, indeed, of the work and responsibility of the Account department—devolves on him; and though the revenue is small, the accounts are elaborate.

16. In the district establishments I have proposed an additional 5 rupees per mensem for the Kardars of Mittee. All the Kardars received 40 rupees per mensem till the beginning of 1853, when, pursuant to the recommendation to Government, contained in letter and

No. 65 of 1853, Revenue Department, dated 26th February, from Commissioner in Sind to the Governor in Council, Bombay.

enclosure noted in the margin, copies of which were received with Commissioner's letter No. 477, of 28th February 1853, the pay of the Kardars of Mittee and

Deepla was reduced from 40 to 35 rupees a month. The Mittee Kardarate is extensive, while the town is the most important in the Desert, and the merchants of it carry on an extensive trade with Sind Proper, Kutch, and Marwar; it is therefore advisable to have a well-paid and respectable Kardar there: a Deputy Kardar has also been added to the Mittee establishment to assist the Kardar. It appears objectionable having only one Government functionary capable of writing the most simple report in so large a district.

17. I now proceed to notice the modifications in the Police department.

18. At present the Police is composed of five Jemedars and one hundred and ten Police horsemen, and three Killadars and thirty-six footmen. The mounted Police I propose modifying by having horsemen and Shutur Sowars or camel-men, in the proportion of 58 of the former to 30 of the latter, with a complement of officers, dispensing with the services of the Soda Killadars and footmen.

19. Instead of the present designation of Khosa Police Horse, it would be expedient to denominate them the Police Horse, as I should be glad to see other classes as well as Khosas serving in the Police.

20. In dispensing with the services of the Soda Killadars and footmen, I would suggest the advisability of the Mittee and Islamkote Chiefs receiving political stipends of 15 rupees per mensem each, for the reasons stated in the 6th paragraph of my letter to the Commissioner in Sind, No. 47, of 21st February 1853.



21. The above Police force, which might be dressed in uniform and armed with carbines, appears to me sufficient for the Deputy Collectorate of Thurr and Parkur.

22. As regards the third question, I do not see any means of reducing the expenditure below that proposed in the accompaniment hereto. The receipts might probably be augmented by working the Mookyee salt lake, should the doing so be found feasible without interfering with or supplanting the Guzerat salt works ; no other means of increasing the receipts occur to me at this moment.

23. Adverting to the fourth question, on the subject of land tenure, I beg to refer to the letter noted in the margin, and to suggest, firstly, that each field be measured, and a register thereof in the whole Deputy Collectorate be prepared. Secondly, that they be subsequently written over to the cultivators respectively in perpetuity at a quit-rent ; liable, however, to resumption in the event of the occupant not paying the quit-rent, being convicted of any crime involving trial before the Deputy Magistrate, or leaving the districts permanently. No rent should be attempted to be levied in famine years.

24. This arrangement would have the effect of removing the inconveniences of the present assessment system, and *giving fixedness to the tenure* by which the land is held : as, however, both these points are alluded to at length in the above-quoted letter, it is unnecessary to say more regarding them now.

25. Supposing the proposed establishments to be sanctioned, there will in future be three Kardars and three Deputies, instead of three of the former and two of the latter, as at present ; in addition to which one Mootsudee would probably be requisite for each Kardarate for one year, to enable each field to be measured and assessed ; to the assessment being fixed by the Kardar in communication with the petty Chiefs and other respectable landed proprietors and under the superintendence and orders of the Deputy Collector.

26. I would propose that each field be measured, and that its size and situation with reference to the Thurr to which it belongs, as well as to other fields or prominent natural features of the country, be carefully recorded, with its name and owner's or cultivator's name.

27. The Kardars would of course be able to measure and register many fields themselves. As, however, there is a good deal of current

work also, the greater and most laborious portion of the undertaking would devolve on the Mootsudees entertained for the purpose; their pay should be, I think, 35 rupees a month.

28. It is difficult to say at this moment what other expenses it might be found necessary to incur for measuring-men, ropes, paper, &c. &c.; it appears to me, however, that 50 rupees per Kardarate (inclusive of the Mootsudee's pay above alluded to) for one year would suffice for the additional establishment; or Rs. 1,800 for the whole Deputy Collectorate.

29. The estimated area of the Thurr is 5,500 square miles, and of Parkur 600.

30. The population of the Thurr and Parkur districts is about 44,000 souls.

31. A memorandum of the revenue and charges of the districts since 1848 is forwarded herewith, and marked No. 2.

(Signed) S. N. RAIKES,

Deputy Collector and Magistrate, Thurr and Parkur.

*Boorla, 13th December 1854.*

(True copy)

J. GIBBS,

Assistant Commissioner.

*Statement showing the Present and Proposed Establishment for the Thurr and Parkur Districts.*

| No.                     | DEPUTY COLLECTOR'S PRESENT<br>ESTABLISHMENT. | Amount. |    |    | Total. |    |    |
|-------------------------|--|---------|----|----|--------|----|----|
| OFFICE ESTABLISHMENT.   |  | Rs.     | a. | p. | Rs.    | a. | p. |
| 2                       | English Writers.....                         | 80      | 0  | 0  |        |    |    |
| 1                       | Native Accountant.....                       | 35      | 0  | 0  |        |    |    |
| 1                       | Assistant ditto .....                        | 20      | 0  | 0  |        |    |    |
| 3                       | Puttywallas .....                            | 18      | 0  | 0  |        |    |    |
| 1                       | Office Sweeper .....                         | 2       | 0  | 0  |        |    |    |
|                         |  | <hr/>   |    |    | 155    | 0  | 0  |
| DISTRICT ESTABLISHMENT. |  |         |    |    |        |    |    |
| <i>Nuggur.</i>          |  |         |    |    |        |    |    |
| 1                       | Kardar .....                                 | 40      | 0  | 0  |        |    |    |
| 1                       | Deputy Kardar.....                           | 25      | 0  | 0  |        |    |    |
| 2                       | Registrars .....                             | 16      | 0  | 0  |        |    |    |
| 5                       | Puttywallas .....                            | 25      | 0  | 0  |        |    |    |
|                         |  | <hr/>   |    |    | 106    | 0  | 0  |
|                         | Carried over....                             |         |    |    | 261    | 0  | 0  |

| No. | Deputy Collector's Present Establishment.  | Amount. |    |    | Total. |    |    |
|-----|--|---------|----|----|--------|----|----|
|     |  | Rs.     | a. | p. | Rs.    | a. | p. |
|     | Brought forward. . . . .                   |         |    |    | 261    | 0  | 0  |
|     | <i>Mittee.</i>                             |         |    |    |        |    |    |
| 1   | Kardar . . . . .                           | 35      | 0  | 0  |        |    |    |
| 3   | Puttywallas . . . . .                      | 15      | 0  | 0  |        |    |    |
|     |  |         |    |    | 50     | 0  | 0  |
|     | <i>Deepla.</i>                             |         |    |    |        |    |    |
| 1   | Kardar . . . . .                           | 35      | 0  | 0  |        |    |    |
| 1   | Deputy Kardar . . . . .                    | 20      | 0  | 0  |        |    |    |
| 1   | Registrar . . . . .                        | 8       | 0  | 0  |        |    |    |
| 4   | Puttywallas . . . . .                      | 20      | 0  | 0  |        |    |    |
|     |  |         |    |    | 83     | 0  | 0  |
|     |  |         |    |    | 394    | 0  | 0  |
|     | Contingent Allowance . . . . .             |         |    |    | 46     | 0  | 0  |
|     |  |         |    |    | 440    | 0  | 0  |
|     | <b>KHOSA POLICE HORSE.</b>                 |         |    |    |        |    |    |
| 5   | Jemedars. . . . .                          | 150     | 0  | 0  |        |    |    |
| 110 | Sowars . . . . .                           | 2,200   | 0  | 0  |        |    |    |
| 1   | Mehta. . . . .                             | 20      | 0  | 0  |        |    |    |
|     |  | 2,370   | 0  | 0  |        |    |    |
|     | <b>SODA KILLADARS AND FOOTMEN.</b>         |         |    |    |        |    |    |
| 3   | Killadars . . . . .                        | 45      | 0  | 0  |        |    |    |
| 36  | Footmen. . . . .                           | 180     | 0  | 0  |        |    |    |
|     |  | 225     | 0  | 0  |        |    |    |
|     |  |         |    |    | 2,595  | 0  | 0  |
|     | <b>Grand Total. . . . Company's Rupees</b> |         |    |    | 3,035  | 0  | 0  |

| No. | DEPUTY COLLECTOR'S PROPOSED<br>ESTABLISHMENT. | Amount. |    |    | Total. |    |    |
|-----|---|---------|----|----|--------|----|----|
|     |   | Rs.     | a. | p. | Rs.    | a. | p. |
|     | <b>OFFICE ESTABLISHMENT.</b>                  |         |    |    |        |    |    |
| 2   | English Writers. . . . .                      | 85      | 0  | 0  |        |    |    |
| 1   | Native Accountant. . . . .                    | 40      | 0  | 0  |        |    |    |
| 1   | Assistant ditto . . . . .                     | 20      | 0  | 0  |        |    |    |
| 1   | Duffedar of Peons . . . . .                   | 8       | 0  | 0  |        |    |    |
| 4   | Puttywallas . . . . .                         | 24      | 0  | 0  |        |    |    |
| 1   | Office Sweeper . . . . .                      | 2       | 0  | 0  |        |    |    |
|     |   |         |    |    | 179    | 0  | 0  |
|     | <b>DISTRICT ESTABLISHMENT.</b>                |         |    |    |        |    |    |
|     | <i>Nuggur.</i>                                |         |    |    |        |    |    |
| 1   | Kardar . . . . .                              | 40      | 0  | 0  |        |    |    |
| 1   | Deputy Kardar . . . . .                       | 25      | 0  | 0  |        |    |    |
| 5   | Puttywallas . . . . .                         | 25      | 0  | 0  |        |    |    |
|     |   |         |    |    | 90     | 0  | 0  |
|     | <i>Mittee.</i>                                |         |    |    |        |    |    |
| 1   | Kardar . . . . .                              | 40      | 0  | 0  |        |    |    |
| 1   | Deputy Kardar . . . . .                       | 20      | 0  | 0  |        |    |    |
| 4   | Puttywallas . . . . .                         | 20      | 0  | 0  |        |    |    |
|     |   |         |    |    | 80     | 0  | 0  |
|     | <b>Carried over. . . .</b>                    |         |    |    | 349    | 0  | 0  |

| No. | Deputy Collector's Proposed Establishment.  | Amount. |    |    | Total. |    |    |
|-----|---|---------|----|----|--------|----|----|
|     |   | Rs.     | a. | p. | Rs.    | a. | p. |
|     | Brought forward....   | ..      | .  | .  | 349    | 0  | 0  |
|     | <i>Deepla.</i>  |         |    |    |        |    |    |
| 1   | Kardar .....  | 35      | 0  | 0  |        |    |    |
| 1   | Deputy Kardar .....   | 20      | 0  | 0  |        |    |    |
| 4   | Puttywallas .....   | 20      | 0  | 0  |        |    |    |
|     |   |         |    |    | 75     | 0  | 0  |
|     |   |         |    |    | 424    | 0  | 0  |
|     | Contingent Allowance .....  |         |    |    | 46     | 0  | 0  |
|     |   |         |    |    | 470    | 0  | 0  |
|     | <b>POLICE.</b>  |         |    |    |        |    |    |
| 1   | Soobedar .....  | 35      | 0  | 0  |        |    |    |
| 2   | Jemedars .....  | 60      | 0  | 0  |        |    |    |
| 2   | Duffedars .....   | 50      | 0  | 0  |        |    |    |
| 58  | Sowars, Rs. 20 each .....   | 1,160   | 0  | 0  |        |    |    |
| 1   | Mchta .....   | 30      | 0  | 0  |        |    |    |
|     |   |         |    |    | 1,335  | 0  | 0  |
|     | <b>SHUTUR SOWARS.</b>   |         |    |    |        |    |    |
| 2   | Duffedars .....   | 40      | 0  | 0  |        |    |    |
| 30  | Sowars, Rs. 15 each .....   | 450     | 0  | 0  |        |    |    |
|     |   |         |    |    | 490    | 0  | 0  |
|     |   |         |    |    | 1,825  | 0  | 0  |
|     |   |         |    |    | 2,295  | 0  | 0  |
|     | Tappal expenses between Ballearee and Bhooj .....   | 31      | 0  | 0  |        |    |    |
|     | Monthly allowances to Chiefs of Mittee and Islamkote, as a political stipend, consequent on their services being dispensed with in the Police Department, entered here to show the financial result of the proposed modification. | 30      | 0  | 0  |        |    |    |
|     |   |         |    |    | 61     | 0  | 0  |
|     |   |         |    |    | 2,356  | 0  | 0  |
|     | Monthly saving .....  |         |    |    | 679    | 0  | 0  |
|     | Grand Total.... Company's Rupees  |         |    |    | 3,035  | 0  | 0  |

(Signed) S. N. RAIKES,

Deputy Collector and Magistrate, Thurr and Parkur.

*Deputy Collector and Magistrate's Office,  
Camp Urnealo, 14th December 1854.*

(True copy)

J. GIBBS,  
Assistant Commissioner.

*Memorandum showing the Income and Expenses for each Official  
Year, 1848-49 to 1853-54.*

| RECEIPTS.   | 1848-49 | 1849-50 | 1850-51 | 1851-52 | 1852-53 | 1853-54 |
|---|---------|---------|---------|---------|---------|---------|
| Land Revenue .....  | 6,247   | 21,843  | 7,391   | 21,736  | 19,740  | 6,085   |
| Customs .....   | 16,784  | 10,276  | 11,252  | 11,610  | 4,091   | ..      |
| Judicial Receipts and Unclaimed Property.....                                     | 216     | 663     | 413     | 803     | 591     | 430     |
| <i>Add—</i>   | 23,277  | 35,782  | 19,059  | 34,149  | 24,422  | 6,515   |
| Cash deficient and required to cover Charges.....                                 | 20,451  | 10,213  | 21,169  | 12,861  | 20,769  | 36,279  |
| Total . Co.'s Rupees  | 13,728  | 45,995  | 43,228  | 47,010  | 45,191  | 42,794  |
| DISBURSEMENTS.  |         |         |         |         |         |         |
| Pay of Revenue Establishment .....  | 4,656   | 4,556   | 1,713   | 5,213   | 3,486   | 5,414   |
| Contingencies* .....  | 699     | 810     | 591     | 820     | 1,336   | 1,207   |
| Allowances to Chiefs of Deopla .....  | 1,190   | 1,190   | 1,190   | 1,190   | 1,190   | 1,190   |
| Remissions .....  | 2,150   | 4,015   | 988     | 4,148   | 3,619   | 1,190   |
| Compensation to Parkur Zemindars on account of their Share of Customs duties..... | 4,097   | 5,463   | 5,463   | 5,118   | 5,118   | 5,091   |
| Police† .....   | 30,936  | 29,931  | 30,283  | 30,521  | 30,412  | 28,702  |
| Total . Co.'s Rupees  | 43,728  | 45,995  | 43,228  | 47,010  | 45,191  | 42,794  |

\* Including batta, &c.

† Authorised Police charge, Rs. 31,140.

(Signed) S. N. RAIKES,

Depy. Collector and Magistrate, Thurr and Parkur.

*Deputy Collector and Magistrate's Office,*

*Camp Urnealo, 14th December 1854.*

(True copy)

J. GIBBS,

Assistant Commissioner.

No. 96A OF 1856.

POLITICAL DEPARTMENT.

From Lieutenant Colonel G. L. JACOB,  
Political Agent in Kutch,

To H. L. ANDERSON, Esq.,  
Secretary to Government, Bombay.

*Dated Bhooj, 28th June 1856.*

SIR,—Captain Raikes has shown me copy of the Sind Commissioner's report to Government No. 48c, dated 21st January last, on the past and present state and future management of the Thurr and Parkur, in which Mr. Frere has explained how the district became gradually detached from Kutch until it assumed its present anomalous condition.

2. The last step in this transition followed my taking charge here in 1851. I found the Political Agency a mere channel for the receipt of orders from and reports to the Commissioner, thus retarding business, preventing ready references in the compilations of either party, filling his own records with inapplicable papers, and placing him in an ambiguous position ; I therefore suggested that both parties should correspond with each other direct.

3. During the period that this district bore a *quasi* and unwilling allegiance to the Meers of Sind, its connection with the British Government grew up through Kutch ; at first power in the suppression of banditti, subsequently magnanimity and equity, were followed by their natural consequence—trust. The people from of old were connected with those of Kutch by marriages with all classes up to the reigning family\* ; and for many years a detachment of Kutch Horse was stationed in Parkur. They naturally therefore looked to the Kutch authorities for shelter during the storm that swept away the Talpoor dynasty.

4. The secret of the success Mr. Frere's report shows to have followed Colonel Roberts' and his successor's management of the district, was that they interfered as little as possible with the habits of the people, and that he was known and trusted from many years' intercourse with them as Assistant Political Agent in Kutch ; in short,

\* The present Rao's mother was a Soda of the Desert.

it was kept separate from Sind and its changes. The Commissioner's report on the northern half of these sandhills (No. 62, dated 12th February 1855, item Omerkote) shows the contrast effected by treating that portion of them as an integral part of Sind. In the south, peace, order, and content ; in the north, the reverse ; and yet there is only an imaginary boundary betwixt the two—the country and people are the same.

5. The Desert\* has no affinity with the alluvial plains of Sind ; it stands apart from them in every respect, differing in soil, and produce, and in the language, habits, and feelings of the people ; it constitutes, in short, a portion of Rajpootana, but with a larger sprinkling of Mahomedans consequent on its proximity to Sind.

6. I can trace no cause for its separation into two parts after the conquest—one under Hyderabad, the other under Kutch—beyond Colonel Roberts' desire to take charge only of the southern half, consequent, doubtless, on his fuller acquaintance with it, and the difficulty of undertaking more in conjunction with his own duties as Political Agent in Kutch and Commandant of the troops.

7. At first this charge was governed politically, but in assimilation to other parts of Sind it became a Deputy Collectorate, and bit by bit paper work augmented until a considerable establishment became requisite, although only now containing 44,000 souls, and yielding Rs. 21,482 a year of revenue† ; the outlay, however, is more than double, so that Government sustains a yearly loss of more than its whole revenue.

8. The question of what shall be the future management of this district is now before the Honorable Board, consequent on the Commissioner's report alluded to ; and it has appeared to me a duty to offer a few observations for the consideration of Government before final decision, that it may be regarded from all points of view.

9. Mr. Frere does not speak of it otherwise than as an appurtenance of Sind ; neither does the question of putting an end to separate administrations over one homogeneous tract appear to have occurred to him ; yet both these points are deserving of the fullest consideration. The two facts, of the connection with Sind having worked ill,

\* So called, but in some respects scarcely a correct name, as the sandhills are often covered with shrubs. Good grain abounds after rain, and the valleys often contain arable soil.

† I take the figures of the seven years given in paragraph 10 of Mr. Frere's report.

and that with Kutch well, are sufficient to create doubt whether it is politic to adhere to the first and disavow the latter.

10. The true policy would appear to be to follow nature, and place the people of one country under one rule, to free them as much as possible from the shackle of laws that they revolt at or cannot understand, and to govern them patriarchally, in a manner suited to their wild and scattered state. Colonel Roberts' and Captain Raikes' success may be attributed to such management.

11. The great difficulty arises from the climate and nature of the country preventing European residence, and from the revenue being too limited to pay the cost of management. That for the northern portion reached only Rs. 12,300, at an enhanced figure caused by competition of farmers,\* the which by the way has had a tragic end.

12. The district consolidated would constitute an area of above 10,000 square miles, with a population, according to the latest returns, of about 65,000 souls.† If a separate officer be appointed for the exclusive duty, he might easily perform it; joined to other duties, it would render neglect of one or other more or less necessary.

13. The existing state of things is most unsatisfactory; we have now an officer performing much work for which he receives nothing, and which he can only do at the expense of the duties for which he is paid, however zealous and painstaking he may be; meanwhile he is under two distinct authorities, who may be in need of his services at the same moment.

14. And yet the connection with Kutch has its advantages. His Highness the Rao makes an admirable arbitrator in the quarrels of the Soda Chiefs; in trials needing them, the Kutch Chiefs are employed as assessors. The Bhooj Fort (all expenses defrayed by the Rao) furnishes the district Jail. The proceedings, as also all correspondence and accounts, are written in Guzerathee, which the people know, whilst it is difficult to find men in Sind competent to take office on these conditions. Its functionaries are all drawn from the south; perhaps some of the disaffection of the Omerkote district may have been caused by the official language being in an unknown tongue.

\* Paragraphs 33 and 34, Omerkote Report quoted.

† Paragraph 2, Thurr and Parkur Report; paragraph 5, Omerkote Report.



15. How to solve existing difficulties is rather a perplexing question ; but I am disposed to think the best method would be to unite what has affinity for each other, rather than to yoke together what has proved unsuitable ; and with this view I would suggest, in the spirit of Mr. Frere's report—

That a Political Superintendent be appointed, not for the southern half alone, but for the whole of this western Desert. That as he could scarcely be expected to reside in it\* for several months in the year, Kutch would offer him far greater facilities for carrying on his duties than Sind, and that it would therefore be expedient to place him in subordination to the Political Agent of Kutch, as the channel between him and Government.

16. The Hyderabad Collectorate might then, perhaps, dispense with an Assistant, whose salary would partly cover the expense of the new office ; at any rate the high paid Sind officials could be replaced by men of the stamp now filling the Thurr and Parkur Kardarates, with a saving to Government, and, as far as may be judged by the respective results of their labours, with benefit to the people ; not that it is at all an easy matter to get good men for the Desert, and some increase of pay might be advantageous.

17. If Captain Raikes, who has laboured so successfully with the Thurr and Parkur, were the officer selected for the post, the expense might further be met by reducing the Kutch Assistancy from a First to a Second Class.

18. The salary ought to be something above that of a First Assistant, or it might be difficult to find qualified men to undertake it.

19. With a competent party in charge, it would matter little whether he were placed under Sind or Kutch ; but the connection with the latter country cannot now be broken without expense and difficulty, though eventually the spread of education, and the growth of commerce with Sind, may allow it to be severed without inconvenience.

20. A copy of this letter will be sent to the Acting Commissioner in Sind, as His Lordship in Council will doubtless desire his opinion on the suggestions it contains.

\* At any rate a very large outlay for this purpose, and for Jails, &c. would be necessary, and few if any worth having would accept the appointment, to live in it all through the year.

21. Captain Raikes, whose opinions I have requested on the subject, offers the following objections :—

1st.—The great distance of the northern portion of the Desert from Kutch.

2nd.—The fact of there being more intercourse between Sind and that portion of the Desert in traffic and otherwise, than with Kutch.

3rd.—That the connection with Sind has now been so long established as to render severance questionable.

4th.—That Omerkote itself and Nubbeesa, the principal places, are just outside the Desert, having lands in plains as well as sandhills.

22. These objections carry much weight with them, and though on the whole four or five months' residence in these districts during the year would be far more valuable than the scant visits heretofore paid from Sind, I would by no means wish to press my opinion as to the consolidation of the Desert management ; I have offered it simply as a suggestion for consideration.

23. Should it be now deemed too late to be carried into effect, or otherwise inexpedient, I still think that the present anomalous state of things as regards the Thurr and Parkur ought to be put an end to ; and the simplest mode of doing so would be, to place the district under Kutch as a temporary measure ; to change its designation, as suggested by Mr. Frere ; the officer in charge being styled either Political Superintendent of, or Political Assistant for, the district, and, I should trust, with an extra allowance for the duties.

I have the honour to be,

Sir,

Your most obedient Servant,

G. L. JACOB,

Political Agent in Kutch.

*Kutch Political Agency, Bhooj, 28th June 1856.*

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No. 76 OF 1856.

POLITICAL DEPARTMENT.

From Lieutenant Colonel JOHN JACOB, C.B.,  
Acting Commissioner in Sind,  
To the Right Honorable LORD ELPHINSTONE, G.C.H.,  
Governor and President in Council, Bombay.

*Dated 10th July 1856.*

MY LORD,—I have the honour to bring to the notice of your Lordship in Council that I have received the communication noted in the margin, a copy of which I have the honour to transmit herewith, from the Political Agent in Kutch, forwarding to me a copy of a despatch to your Lordship in Council, No. 96A, dated 28th June last, regarding the anomalous state of the arrangement by which the Assistant Political Agent in Kutch is also Deputy Collector and Magistrate of the Thurr and Parkur district in Sind.

2. The inconvenience of the present arrangement is very great, and it appears to me that it is increasing, and that it must continue to increase.

3. But the Political Agent in Kutch has been greatly misinformed as to the facts and circumstances of the case as detailed in paragraphs 3, 4, 5, and 6 of his letter to Government.

4. The people of this district have the most strong and invincible objection to being transferred to the rule of Kutch; nothing could have been more earnest or more forcible than their expressions to Mr. Frere on this subject. Wherefore, the remarks contained in paragraph 10 of the letter of the Political Agent in Kutch to Government, however correct in themselves, tend most decidedly to prove that it would be highly impolitic in the present instance to follow the course therein recommended.

5. The whole district certainly formed an integral part of Sind long before and up to the date of the conquest, and at the conquest it only became in any way connected with Kutch because Kutch itself was made subordinate to, and in fact was annexed to the Government of Sind.

6. With respect to the remarks in paragraph 5 of the despatch of

the Political Agent in Kutch under notice, I beg leave to point out to your Lordship in Council that these are evidently founded on most defective information.

7. I have good personal knowledge of the district in question, having repeatedly traversed every part of it, and also resided for some time at Omerkote. The tract in question is undoubtedly a desert waste, perhaps the most dreary on the face of the earth, although it be quite true that grass grows and that some trifling cultivation takes place in certain favoured spots in it when rain falls. This Desert is not separated from Sind, but everywhere along the whole line the sandhills are intricately intermingled with the alluvial soil of the Indus. In fact, the Purgunas of Omerkote and of Nowakote are as much in the alluvial plain of Sind as in the Thurr, while the great Narra Works will ere long bring the Indus water through the midst of the sandhills.

8. This district is, in fact, not only closely connected with, but is (with the exception of the little district of Parkur, which is a peninsula nearly surrounded by the Runn, and is distinct by itself) one with Sind, while it is as much separated from Kutch by the Runn as if the sea there still covered its former bed. In fact, it is even more completely separated from Kutch than if the Runn were still covered by the ocean, for in that case the communication by boat would assuredly, taking the average of all seasons, be more easy than it now is across the salt swamp of the Runn.

9. The observations in paragraphs 14 and 16 of the letter of the Political Agent in Kutch are altogether erroneous. The Soda Chiefs are most unwilling to receive the Rao of Kutch as their liege lord ; the Sindee language is in common current use in the Omerkote district ; and I am not aware of any disaffection existing in that quarter. The Thurr portion of the Omerkote district bears so minute a proportion to the extent of the whole charge of the Deputy Collector of Meerpoor, that its being detached from that charge would hardly be felt as a reduction of business ; and no Deputy Collector of the Hyderabad Collectorate being employed in or concerned in any way with the duties of the Thurr and Parkur, no alteration in the management of that district could enable any Deputy Collector of Sind to be dispensed with ; while it is, I beg leave respectfully to submit to your Lordship in Council, scarcely within the competence of the Political Agent in Kutch to remark on the Sind officials whom

he supposes to be highly paid ; and I may observe with regard to th proposal to replace them from Kutch, that the men now filling the Thurr and Parkur Kardarates are not giving such complete satisfaction as to make a comparison between them and the ordinary Kardars of Sind, even in an economical point of view, at all favourable to the former.

10. The question of the future management of the Thurr and Parkur district of Sind appears to me to be simple and easy of adjustment. I am of opinion that, as recommended by Mr. Frere in

his letter as per margin, the district should  
No. 18c, dated 21st January 1856, Revenue Department. evidently remain attached to Sind, and should be entrusted to the management of an officer to be directly subordinate to the Commissioner, and having no other charge The designation of this officer might be “ Political Superintendent of the Thurr and Parkur District,” and a salary might be assigned him of 800 rupees a month, with a travelling allowance of 10 rupees a day.

11. Your Lordship in Council will have perceived from Mr. Frere's report above quoted, that he proposed to assign to Captain Raikes a staff salary of 400 rupees per mensem in addition to all other emoluments which he might be enjoying in any other capacity.

12. This arrangement was proposed by Mr. Frere under the impression that the office of the Assistant Political Agent in Kutch was almost a sinecure, and that, therefore, the additional duty might be performed by that officer without inconvenience.

13. But under whatever considerations and for whatever reasons it may have been made, it is quite evident to me that the present arrangement could not, under any circumstances, be continued, without the greatest confusion and injury to the public service ; and I trust I may be excused in requesting the early attention of your Lordship in Council to a settlement of this important charge.

I have the honour to be,

My Lord,

Your Lordship's most obedient humble Servant,

JOHN JACOB, Lieut. Colonel,

Acting Commissioner in Sind.

*Commissioner's Office,  
Kurrachee, 10th July 1856.*

Copy.]

No. 535 OF 1856.

From Lieutenant Colonel G. L. JACOB,  
Political Agent in Kutch,

To Lieutenant Colonel JOHN JACOB, C.B.,  
Acting Commissioner in Sind, Kurrachee.

*Dated Bhooj, 3rd July 1856.*

SIR,—I enclose copy of a despatch to Government (No. 96A, dated 28th June 1856) on the future management of the Desert between Sind and Kutch, which at present is in an anomalous state. I am by no means inclined to press my suggestion as to consolidation; for, however expedient it might have been at first, the growth of circumstances may now render it unadvisable, of which you will be the best judge: but there can be no doubt of the intimate alliance of the southern half with Kutch and Marwar, of Sind being a foreign country to it, and of its being therefore more easily managed from this side than from yours. The growth of Sind may gradually change all this; but meanwhile I do not perceive any better mode of dealing with it than that recommended: at any rate something ought to be done to relieve this Agency from its present embarrassing position. Perhaps you will favour me by submitting to Government your views on my letter.

I have the honour to be, &c.

(Signed) G. L. JACOB,  
Political Agent.

*Kutch Agency Office, Bhooj, 3rd July 1856.*

(True copy)

LEWIS PELLY,  
Acting Assistant Commissioner in Sind.

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NO 3671 OF 1856.

TERRITORIAL DEPARTMENT, REVENUE.

To Lieutenant Colonel JOHN JACOB, C.B.,  
Acting Commissioner in Sind.

SIR, - I have placed before the Right Honorable the Governor in Council the communications, as per margin, on the present condition and system of management of the Thurr and Parkur districts, together with the several reports and correspondence, copies of which accompanied the communications now under acknowledgment, and have been directed to communicate to you the following observations and instructions.

Letter from the Commissioner in Sind, No. 48c, dated 21st January 1856.

Ditto from the Acting ditto, No. 76, dated 10th July 1856.

2. His Lordship in Council has read with much interest the comprehensive and lucid account given by Lieutenant Raikes in his letter No. 67, of the 17th March 1853, of the districts in question; but as Mr. Frere's report is of much more recent date, and embraces all the specific points on which it is necessary that Government should record their opinion, I am to adopt it as the groundwork on which Government have founded the subjoined review of the measures which have been undertaken, or are proposed, in connection with the administration of the Thurr and Parkur districts.

3. These may be treated of under the following heads :--

- I. Contemplated transfer of the Thurr and Parkur districts to the Rao of Kutch.
- II. Settlement and improved management of the land revenue.
- III. Repairs to tanks.
- IV. Grants of land in compensation for shares in town and transit duties which have been abolished.
- V. Money allowances.
- VI. Reductions in the pay of Khosa Horse and Soda Killadars.
- VII. Remuneration to the Assistant Political Agent, Kutch, for performance of duties as Deputy Collector of Thurr and Parkur.
- VIII. Construction of a bungalow in the Thurr and Parkur.

CONTEMPLATED TRANSFER OF THE THURR AND PARKUR DISTRICTS  
TO THE RAO OF KUTCH.

4. Mr. Frere has traced in his report the circumstances under which a connection has of late years arisen between Kutch and the Thurr and Parkur Districts, and which has led to its management being entrusted to the Assistant to the Political Agent in Kutch. This, added to the fact of there being little prospect of increasing the revenue, and no very obvious mode of decreasing the expenditure of the district, which considerably exceeded the income, gave rise, some time past, to a consideration of the expediency of making over these districts to the Rao of Kutch.

5. It now appears that the inhabitants of the Thurr and Parkur have expressed themselves against the proposed measure, and urgently prayed that "Government would leave them as they were under Lieutenant Raikes, and *not sell them* to any one, neither to the Rao of Kutch, nor to their own Chiefs collectively, nor to any one of them."

6. "The earnestness and unanimity with which their prayer was urged," Mr. Frere states, "assured me, that even had their request been less reasonable in itself, Government would not refuse to comply with it." Mr. Frere has on this point rightly interpreted the sentiments of Government.

7. After remarking that under the Aneers the income of Government, as well as that of the petty Chiefs, was almost entirely dependent on town and frontier duties, Mr. Frere adds :—

"47. The abolition of town duties, which took place in Sind soon after the conquest, was not extended to the Thurr till some years afterwards.

"48. This measure very seriously affected many of the Chiefs, who had little to live on except their shares of the duties, and their case having been represented to Government, compensation was granted, half in land and half in money, for six years, subject to revision at the end of that period.

"49. I may remark that the effect of the abolition of these duties has been very apparent. It has since been more than once reported by the Deputy Collector that in seasons which under the old system would have been years of famine, and when all the people would have quitted the country, they have left their families



behind and fed them with imported grain, sent in from the neighbouring provinces, to which a few of the men drove the cattle, instead of the whole tribe being obliged to emigrate bodily, as would have been their only resource while the town duties acted as a heavy tax on importation."

8. Government accept with much gratification the testimony which Mr. Frere bears, in the passage above quoted, to the complete success of the liberal course which has been followed in remitting the heavy imposts under which the inhabitants laboured, and in compensating the Chiefs for the loss which they would otherwise have suffered from the abolition of the town duties.

9. His Lordship in Council observes that two measures were proposed by Colonel Roberts (late Political Agent, Kutch) with a view to make up for the loss of the duties in question.

1st.—To permit the export of salt from the Mookjee salt lake near Veerawow, levying on the salt a reduced rate of excise.

2nd.—To impose an excise on ghee, which is one of the few staples of the Thurr.

10. The Mookjee salt, in the opinion of Mr. Frere, could not pay the full excise duty leviable elsewhere in the Bombay Presidency, because salt is naturally produced in numerous similar localities in the Marwar States, the boundary of which is not more than a few coss from Mookjee. The export of Mookjee salt, it appears, was prohibited, from an apprehension that it would interfere with the salt at the Government pans at Patree and Joonjawarra.

11. From the inquiries made on the spot, Mr. Frere is convinced that Colonel Roberts and Lieutenant Raikes are right in supposing that Mookjee salt might be allowed export at a reduced rate of excise, so graduated as not in any way to interfere with the salt of the Government pans at the two stations abovenamed, and that a considerable revenue might thus be realised. Mr. Frere, therefore, recommends that the export of salt from Mookjee be again allowed at a reduced rate of duty, which might be so arranged by the Deputy Collector, in communication with the Commissioner of Customs, Salt, and Opium, as to fulfil the conditions indicated above. "I anticipate," adds Mr. Frere, "that this measure, if judiciously carried out, would go far to redress the balance of expenditure over receipts."

12. Government agree with the view taken by Mr. Frere of this subject, and concur in his suggestion that the subject be submitted for the opinion of the Officiating Commissioner of Customs, Salt, and Opium. It seems to his Lordship in Council that, under the arrangement now in contemplation for excluding the Bhoyatra and Bakasir salt from Guzerat by a preventive line of Chokces from Mowsaree to Daunta, all danger to our salt revenue at Patree and Joonjawarra from the proposed measure would be entirely obviated.

13. As regards the second measure (to impose an excise on ghee) proposed by Colonel Roberts, Mr. Frere writes as follows :—

“ 59. This appears to me to be a perfectly feasible measure, and could be introduced without any difficulty, and with a certainty of producing a considerable revenue. But it would be a step backwards in finance, and is not a measure I would on any account recommend if it can possibly be avoided.

“ 60. I should prefer, if it were absolutely necessary, a grazing tax, which might be made a profitable source of revenue, without interfering much with either trade or agriculture ; but even this I would rather avoid if a sufficient revenue can be raised from salt.”

14. Government entirely concur with Mr. Frere in these opinions, and direct that nothing further be done towards imposing a tax on the pastoral products of the district, until the amount likely to be realised from salt has been clearly ascertained.

#### SETTLEMENT AND IMPROVED MANAGEMENT OF THE LAND REVENUE.

15. The measures which have been adopted for effecting these objects, Mr. Frere states, will form the subject of a separate report, which has been received by Government, and will be separately disposed of.

#### REPAIRS TO TANKS.

16. Mr. Frere considers that much may be done indirectly to improve the revenue of the Parkur district by repairing the numerous ancient tanks, which, he observes, though rarely affording the means of irrigation, are always of the utmost importance in supplying the people and their cattle with drinking water.

17. After referring to a former correspondence, in which Government declined to sanction a proposal for the repair of thirty-four tanks in the Thurr and Parkur, in consequence of no

proper plans and estimates for the work having been furnished, or the means for properly superintending it shown, Mr. Frere remarks :—

“ It is quite hopeless to expect anything to be done, if we wait for regular plans and estimates. The works are of the simplest description, and of a nature which the people of the country thoroughly understand, and can construct without assistance.”

He therefore recommends that a sum of Rs. 5,000 per annum be placed at the disposal of the Deputy Collector, to be devoted to the repairs of tanks, till the whole are completed.

18. As the land revenue of the Thurr has just been raised to Rs. 16,428-11-3, which is Rs. 5,901 more than has ever yet been realised from this district, his Lordship in Council is pleased to sanction an expenditure of Rs. 5,000 a year, for the next three years, for the repair of these tanks.

See para. 12 of your letter No. 1370, dated the 3rd June 1856, disposed of by Government Resolution No. 3321, dated the 30th August 1856.

#### GRANTS OF LAND IN COMPENSATION FOR SHARES IN TOWN AND TRANSIT DUTIES WHICH HAVE BEEN ABOLISHED.

19. These grants, Mr. Frere states, are trifling in amount, and are all that remain to the Chiefs, who, formerly in a position of semi-barbarous independence, extracted in one shape or another from their neighbours, as well as their dependents, a much larger income.

20. “ The power of these Chiefs,” Mr. Frere adds, “ for mischief may be small, but they have still much local influence ; and it is, I am of opinion, sound policy to keep them contented.”

21. Before coming to a decision on this subject, His Lordship in Council has desired me to request that you will have the goodness to furnish information as to the amount of these grants.

#### MONEY ALLOWANCES.

22. His Lordship in Council agrees with Mr. Frere in opinion that money allowances, which are not specially guaranteed, may be left to be disposed of, from time to time, as incumbents die, and their continuance or stoppage may depend on the circumstances of the time.

#### REDUCTION IN THE PAY OF KHOJA HORSE AND SODA KILLADARS.

23. On this subject Mr. Frere writes as follows :—

“ 70. Lieutenant Raikes anticipates that some reduction of expen-

diture may be hereafter effected in the pay of Khosa Horse and Soda Killadars, till they are reduced to what is necessary for local police purposes.

“ 71. I do not think it advisable to hurry such reductions ; but would draw the special attention of the Deputy Collector to the subject, and leave it to him to make, from time to time, such further reductions as he thinks can be prudently effected.

“ 72. Those now suggested by him in the annexed memorandum (No. 328, of the 13th December), in which I entirely concur, amount to Rs. 679 per mensem, or 8,148 per annum.”

24. This reduction should be at once effected.

25. Government observe with satisfaction that Mr. Frere thinks that if the land revenue be improved, as he hopes it will be under the settlement now in progress, and even less than he expects be derived from the salt lake of Mookyee, the average receipts may be expected fully to equal the current expenditure.

#### REMUNERATION TO THE ASSISTANT POLITICAL AGENT, KUTCH, FOR PERFORMANCE OF DUTIES AS DEPUTY COLLECTOR OF THURR AND PARKUR.

26. It appears that Lieutenant Raikes, Assistant Political Agent, Kutch, who was the brother-in-law of Colonel Roberts, late Political Agent, aided that officer in all his duties connected with the Thurr ; that he ultimately took charge of all the current duties ; and that, since Colonel Roberts' departure his successor has declined any responsibility for the Thurr duties, which, under the title of Deputy Collector and Magistrate, Lieutenant Raikes has continued to discharge as an office entirely distinct from any appertaining to the Agency.

27. Mr. Frere has been unable to find any official document authorising the system which has been followed, except a letter from the Governor of Sind, dated in June 1844, allowing Colonel Roberts to undertake the charge, and appointing his Assistant a Deputy Collector.

28. “ I have above described,” observes Mr. Frere, “ how the charge of the district passed almost imperceptibly from Colonel Roberts into the hands of the Assistant Political Agent, who, as Deputy Collector of Thurr (a designation intended for the Deputy Collector who was to have been stationed at Wanga Bazar, in the

Hyderabad district), has for the last eight years conducted the entire duty, without receiving any remuneration for it. This was reasonable only so long as the arrangement was intended to be temporary ; but the duty is a permanent and important one, and the man who discharges it should be properly paid for it."

29. Mr. Frere recommends an allowance of Rs. 400 per mensem, in addition to any other pay and emoluments which may be drawn by the officer selected for the duty as " Political Superintendent of the Thurr and Parkur," and deprecates the duty being attached to the appointment of Assistant Political Agent or to any other office.

30. The present Political Agent in Kutch (Lieutenant Colonel G. L. Jacob) to whom a copy of Mr. Frere's report has been shown by Lieutenant Raikes, offers, in a letter to Government No. 96A, dated the 28th June 1856, certain observations and suggestions regarding the management of the Thurr and Parkur districts. He is of opinion that a Political Superintendent should be appointed not for the southern half alone, but for the whole of the Western Desert, and he considers it expedient that such officer should be subordinate to the Political Agent, Kutch.

31. His Lordship in Council observes that you have been furnished by the Political Agent, Kutch, with a copy of the letter above mentioned, and that you dissent from the proposal that the Thurr and Parkur districts should be placed under Kutch. You are of opinion that, as recommended by Mr. Frere, the districts should remain attached to Sind, and be entrusted to the management of an officer to be directly subordinate to the Commissioner, and having no other charge ; and you suggest that the designation of this officer be " Political Superintendent of the Thurr and Parkur Districts," and that a salary be assigned him of Rs. 800 per mensem, with a travelling allowance of Rs. 10 per diem.

32. After referring to the proposal made by Mr. Frere to assign to Captain Raikes a staff salary of Rs. 400 per mensem, in addition to all other emoluments which he might be enjoying in any other capacity, you add,—

" 12. This arrangement was proposed by Mr. Frere under the impression that the office of the Assistant Political Agent in Kutch was almost a sinecure, and that, therefore, the additional duty might be performed by that officer without inconvenience.

" 13. But, under whatever considerations and for whatever

reasons it may have been made, it is quite evident to me that the present arrangement could not, under any circumstances, be continued without the greatest confusion and injury to the public service, and I trust I may be excused in requesting the early attention of your Lordship in Council to a settlement of this important charge."

33. His Lordship in Council cannot accede to the recommendation of making a new office of Political Superintendent for the Thurr and Parkur : he is of opinion that the officer in charge of these districts should be made a First Class Deputy Collector, and that his salary should, in some degree, be in proportion with the revenue to be derived.

34. Government can see no reason why the officer who manages the Omerkote districts should not manage the southern portion also. If these districts are superintended by a European officer, a very small addition would suffice to pay him for the southern districts. Lieutenant Raikes, as Assistant Political Agent in Kutch, draws a consolidated salary of Rs. 700 per mensem, and receives Rs. 300 a month district travelling allowance. His Lordship in Council does not think, therefore, considering Lieutenant Raikes' standing in the service, that he has been much under-paid, even when taking the Thurr in addition to his Kutch duties. The district travelling allowance is to be reduced, on a vacancy, to Rs. 150, and Government resolve that the pay also be reduced to Rs. 400 a month ; for though there is, at times, much to be done by the officer holding the appointment of Assistant Political Agent in Kutch, there appears no reason why he should be paid more highly than the Third Assistant in Kattywar, whose duties are far more onerous. The eventual saving from the salary of the Assistant Political Agent in Kutch should be sufficient, with the Omerkote pay, to make up the salary of the Deputy Collector who may be placed in charge of the Thurr and Parkur districts.

#### CONSTRUCTION OF A BUNGALOW IN THE THURR AND PARKUR.

35. On this subject Mr. Frere makes the following remarks :—

" I had occasion to witness the discomfort and possible risk which might attend a residence in the Thurr and Parkur, even in the cold weather, owing to the want of any kind of shelter. A small bungalow would obviate this, and sometimes enable the officer in charge to remain in the districts several weeks longer than would

be otherwise prudent. It would also be a great comfort and convenience to occasional travellers between Sind or Kutch, and Deesa or Nusserabad, Neemuch, &c."

36. Mr. Frere recommends the grant, for the above purpose, of Rs. 3,000, and adds—"The locality might be left to be chosen by the Deputy Collector. As every particle of timber and all the artificers will have to be sent from Mandvec, a smaller sum will not suffice."

37. Mr. Frere's recommendation is sanctioned by His Lordship in Council.

I have the honour to be,

Sir,

Your most obedient Servant,

H. YOUNG,

Offg. Chief Secretary to Government.

*Bombay Castle, 20th September 1856.*

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**SELECTIONS FROM THE RECORDS OF THE BOMBAY  
GOVERNMENT.**

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**No. XLII.—New Series.**

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**REPORT OF CAPTAIN W. L. MEREWETHER,**

**ACTING POLITICAL SUPERINTENDENT, FRONTIER OF UPPER SIND,**

**WITH OTHER PAPERS,**

**RELATING TO THE**

**ENLARGEMENT OF THE BIGAREE CANAL,**

**IN UPPER SIND.**



**Bombay:**

**PRINTED FOR GOVERNMENT**

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# THE BIGAREE CANAL, UPPER SIND.

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No. 462 OF 1856.

PUBLIC WORKS DEPARTMENT.

From Lieutenant Colonel JOHN JACOB, C.B.,

Acting Commissioner in Sind,

To the Right Honorable Lord ELPHINSTONE, G.C.H.,

Governor and President in Council, Bombay.

*Dated 6th December 1856.*

MY LORD,—With reference to former correspondence (ending with the Government Resolution No. 2575, dated 24th September 1856), I have the honour to transmit to your Lordship in Council the accompanying report by Captain Merewether on the Bigaree Canal, the most important irrigational work as yet executed by the British Government in Sind ;—a work which was projected, commenced, and in great part executed by myself, as Political Superintendent on the Frontier, and which has now been most admirably completed by my excellent Lieutenant, Captain Merewether.

2. To the report is appended some correspondence relating to the work and effects of the canal.

3. Little further observation seems to be called for from me, but I beg leave respectfully to commend to the favourable notice of Government the most successful exertions displayed in the execution of this great work by Captain Merewether, whose zeal, energy, and perseverance in its performance I cannot praise too highly.

4. I beg leave also to call attention to the merits of Kardar Khyr Shah, who is mentioned with such commendation by Captain Merewether. I am personally well acquainted with this Kardar.

I entirely concur in the opinion expressed by Captain Merewether of his high merits, and I beg, therefore, to recommend that I may be authorised, on this occasion, to make him a present of a horse and a shawl, of an aggregate value not exceeding Rs. 500, which would, I am convinced, be attended with excellent effect in this country, where it is of the greatest importance to obtain the cordial co-operation, and to develop the working qualities of such men as Khyr Shah, who is a Syud of very good family, of high repute, and of considerable influence.

5. Finally, I would respectfully suggest that it might be useful if your Lordship in Council were pleased to direct that this report, with the map, &c. be printed.

I have the honour to be, &c.

(Signed) JOHN JACOB, Lieutenant Colonel,  
Acting Commissioner in Sind.

*Commissioner's Office, Camp Jacobabad, 6th December 1856.*

P.S.—For easy reference, I have appended copies of correspondence relative to this canal, part of which has already been laid before Government.

(Signed) JOHN JACOB, Lieutenant Colonel,  
Acting Commissioner in Sind.

No. 1065 OF 1851.

TERRITORIAL DEPARTMENT, REVENUE.

From the COMMISSIONER IN SIND,

To the Right Honorable Lord Viscount FALKLAND,  
Governor and President in Council, Bombay.

*Dated 10th June 1851.*

MY LORD,—I have the honour to report that when I was at Khen-ghur Major Jacob brought to my notice the immense benefit which would result to all the country north of Shikarpore if the Digaree Canal were deepened and widened, so as to enable it to convey a greater body of water,

2. An inspection of Major Jacob's published map of "Cutchee and the North-West Frontier of Sind" will show your Lordship in Council, better than any description I can give, the direction of this canal (which is one of the principal in Upper Sind), and the present distribution of its water.

3. It will be seen from the map that, after leaving the Indus, the Bigaree runs nearly due west, giving off on its northern side a number of smaller canals, which run in a direction generally north or north-west, till they thin out and terminate about the edge of the Desert.

4. It will be remembered that the surface of this tract of country gradually slopes from the Indus, so that the water which, at the spot where the canal branches off from the Indus, is many feet below the surface, after running forty or fifty miles comes out close to, or on the surface.

5. Hence, the further the canal recedes from the river the nearer is the water to the surface, and the greater are the facilities for raising it, till at length, near the borders of the Desert, it may, during the height of the inundation, be allowed to flow over the fields, without the expense of any wheels or other contrivance for raising it.

6. The soil throughout is naturally good, but, like most soils in Sind, it becomes intensely salt if left untillied and unirrigated; and almost all the wells in the country become either perfectly salt or more or less brackish.

7. At present newly cultivated land near the Desert will, from the extreme saltiness of the soil, produce little but certain varieties of jowaree.

8. Tillage and irrigation will, however, in the course of a few seasons, almost entirely free the land from salt, with the exception of occasional incurable patches; and by assiduous use of the wells, and by turning into them the water from the canals, the most brackish wells become annually improved, till in the third or fourth year they remain sweet all the year through.

9. These facts have been repeatedly proved in all kinds of situations, and under every variety of circumstance, by Major Jacob, since the settlement of this frontier, and there cannot be a doubt but that the whole of the district between Shikarpoor and the Desert might become again, as it has been in more prosperous times, a sheet of cultivation.

10. There are men now living who remember it so cultivated, and the marks of such former cultivation are everywhere now visible.

11. Of late years, as your Lordship in Council is aware, the Frontier tribes have ravaged and desolated the country up to the gates of Shikarpoor. The few inhabitants who remained were almost as lawless as their neighbours, and lived more by retaliatory plunder than by honest labour.

12. Since Major Jacob took charge of the Frontier, this state of things has been completely changed. He has rigidly enforced the disarming of all within our Frontier, and has put down the practice of forays beyond our Frontier, whilst his posts of Sind Irregular Horse form a perfect cordon of protection to all within them against aggression from without.

13. In going from Shikarpoor to Khanghur, I passed over the district: less than four years ago it was exposed to be ravaged by forays of Hill Beloochees, who kept even the Brigade of Shikarpoor in constant alarm of an attack, and who, within the period in question, carried off from that district a large booty, undeterred by a strong detachment of the Brigade, which went in pursuit of them.

14. It was impossible not to be struck with the present altered state of things. Single unarmed travellers seemed now as safe as elsewhere in Sind, and the general sense of perfect security was shown by the improving state of the villages, and the fact that the people now trust themselves, their cattle, and grain-yards, day and night, out in the open fields, instead of keeping, as was so lately their invariable custom, under shelter of their village walls.

15. All were loud in proclaiming their gratitude for the present perfect peace and security assured to them by Major Jacob's arrangements.

16. Nothing further is now wanting to restore the country to its ancient state of prosperity than to give it its ancient supply of water.

17. To do this in the large district traversed by the Bigaree and its branches, nothing more is requisite on the part of Government, than to deepen and widen the Bigaree, the great artery of irrigation, leaving the cultivators along its course to improve in a similar manner, the smaller branch canals which convey the water to their fields.

18. The details of the additional capacity which Major Jacob proposes to give the canal are fully stated in the enclosures. The total expense he estimates at Rs. 1,30,094, which he proposes to divide between the English Government and His Highness Meer Ali Morad, in proportion to the benefit each will derive, so that Rs. 97,570 will be ultimately defrayed by us, and Rs. 32,524 by His Highness.

19. The return will be, at a very moderate calculation, an increase of revenue of about Rs. 89,000 to the British Government, and Rs. 30,000 to His Highness Meer Ali Morad.

20. But it is not only in directly increased revenue that the benefits of the improvement will be felt.

21. An extended and improved supply of drinking water for man and beast, and better grazing, will tell indirectly, but very decidedly, on the prosperity of the cultivators throughout the district.

22. Still more decided will be the moral effect on the people of the country,—it will give the means of subsistence to many thousands, and thereby, like every such measure, strengthen our Government: more especially the reclaimed tribes of Hill Beloochees, whose colonies are all, with few exceptions, on the canals fed by the Bigaree, will find their means of profitable cultivation greatly increased.

23. Those who are under Major Jacob's immediate influence have already shown an excellent spirit in this respect. I have now before me, in a private letter from Major Jacob, an account of some late proceedings of Jummal Khan Doomkee, once a notorious plundering leader, but since Sir C. Napier's Trukkee Campaign, in which he was made prisoner, settled near Khanghur. He last year obtained from Lieutenant Farrington a grant of waste land near Koomree, the next post to Kusmore, on the Sind Frontier. Here he collected all the idle Beloochees from his own village and Janadeyra, the Jekranee colony near Khanghur, and set them to work on the old canal, which they have dug out, besides making a dam about 50 yards long, and in the centre 30 feet high, very strong and solid, secured with trunks of large trees, &c. to prevent the water of the canal flowing into a hollow. This has been done entirely by men who, ten years ago, would have rather starved than touched a spade or hoe; and yet, when



visited by Major Jacob and his officers, they seemed as proud of their work as they would have formerly been of a successful foray ; and even those officers who had encouraged them to the work could hardly have believed that it was executed by Beloochee robbers, putting into their works of peace, as they did formerly into their plundering expeditions, a far greater amount of energy than the Sindhee cultivators.

24. I have referred to this case in some detail, because one such instance is worth any amount of the best reasoned speculation as to the probable results of measures like that in question, calculated to afford numerous opportunities for similar improvements. Your Lordship in Council would, I am convinced, think such results cheaply purchased at a considerable outlay of money, and will therefore, I am sure, accord them a place among the profitable returns to be expected from that now recommended.

25. As the Bigaree lies, in part, in those districts of His Highness Meer Ali Morad which form a portion of Major Jacob's political charge, and as it runs almost entirely through frontier districts, I would recommend that the work be placed entirely under Major Jacob's superintendence, the Collector and his Deputies being directed to co-operate with him in every way, more especially by placing at his disposal the ordinary machinery for canal clearances, including, if necessary, the services of his Deputy, Lieutenant Dickson.

26. There can no doubt His Highness Meer Ali Morad would readily consent to bear his share in a project so advantageous to him, but his pecuniary difficulties may prevent him from paying down, or even promising to pay, his share in money. I would recommend, therefore, that the same course be pursued as has, I find, been usually followed in the ordinary annual clearances of this very canal. His Highness furnishes as many statute labourers as he can. If they are fewer than the number at which he is assessed by the Collector, according to the general and long established custom of the country, the deficient men are entertained and paid by the Collector, and His Highness debited with the amount.

27. Your Lordship in Council is well aware that, besides possessing a more minute and accurate acquaintance with the country than any European living, and having brought all his observations to the test of regular scientific survey, Major Jacob is, in all respects, the fittest person to be entrusted with the execution of the proposed work.

therefore thought it necessary to submit his plan for the criticism of any other officer, simply because I know of none whose scientific attainments are greater, or who could, without the labour of years, add to them so accurate a knowledge of local circumstances.

28. Moreover, the whole plan is so simple, and its results so certain, that there is hardly room for any reasonable difference of opinion, the work being merely the enlargement of an existing canal, and not the excavation of a new one, to the results of which some degree of uncertainty must always attach.

29. I trust I may be pardoned for expressing my respectful opinion that the acknowledgments of Government are due to Major Jacob for maturing and bringing forward a plan which, however closely connected with the great and philanthropic objects he has most at heart, is not one which he was officially bound to take the trouble of bringing forward.

I have the honour to be, &c.

(Signed) H. B. E. FRERE,  
Commissioner in Sind.

No. 358 OF 1856.

From the ACTING POLITICAL SUPERINTENDENT,

Frontier of Upper Sind,

To the ACTING COMMISSIONER IN SIND.

*Jacobabad, 21st October 1856.*

SIR,—I have the honour to forward the accompanying report of the proceedings with regard to the enlargement and extension of the tail of the Bigaree Canal, commenced and completed during the past season.

2. To present a clear view of the advantages that will be derived from this work, as also of the nature and extent of the work done, it will be necessary to refer back a little, and give some account of the improvements made in this canal from the very first.

3. In April 1851 the Political Superintendent on the Frontier of Upper Sind (Major Jacob, C.B.) represented to the Commissioner (Mr. Frere) the gross benefits that must follow on the enlargement of the Bigaree, the principal canal in this part of the country. The

reasons are given, and the subject fully discussed in Mr. Frere's letter (Territorial Department, Revenue, No. 1065, of 10th June 1851, of which copy is appended to this report) addressed to the Governor of Bombay.

4. At that time, this canal, though reckoned one of the largest in Upper Sind, was, from the system of annual clearances being in those days very defective, becoming yearly smaller. \* The supply of water brought down by it was barely adequate for the small amount of then existing cultivation, or for the supply of the inhabitants of the villages dependent on it entirely for drinking water. For want of a sufficiency of fresh water in the soil, the wells in the villages would become salt as brine long before a new inundation brought a fresh supply from the Indus, and the greatest distress sometimes was the result. Hundreds of acres of excellent land also remained waste from the same cause.

5. Major Jacob, the Political Superintendent on the Frontier, had then nothing to do with the civil charge of the district, but being well acquainted with the country, and well aware of the necessity of something being done to improve the means of supplying water, he felt it his duty to bring to the notice of the Commissioner the advisability of enlarging this canal. The Commissioner at once forwarded this scheme on to Government, and further recommended that the work should be carried out by the person who suggested it, Major Jacob, for reasons detailed in the abovequoted letter.

6. The dimensions of the canal in 1851 were at the mouth 24 feet in breadth, and at the Noorwah (as far as which only it was then thought the new excavation should be taken) 18 feet; the banks were very irregular—in some places quite perpendicular; the depth at the mouth was 9 feet, and at the Noorwah 7 feet.

7. It was proposed to enlarge this as follows: breadth at mouth 40 feet, depth 11 feet; at the Noorwah, breadth 30 feet, depth 8 feet; the banks to have a slope of 1 in 1; a berm 6 feet wide to be on either side of the canal, and the earth excavated to be thrown back beyond the berm. The estimated cost of this was Rs. 1,30,094.

8. The Noorwah was the largest off-shoot from the Bigared. It was dug in the time of Noor Mahomed Kullora, and named after him. It was then carried far into the Desert north of Khangaoh. The lower part had long been choked and filled up, only a trace of the old canal being left; but the upper portion, for about 8 miles, was nearly

partially cleared, that water might be conveyed to Khanghur, the head quarters of the Frontier force. The Noorwah runs about four miles to the eastward, but a small branch, the Boodwah, brought the water to the camp of Khanghur.

9. In 1851 the Noorwah belonged to His Highness Meer Ali Morad, and the annual clearance was managed by his officers. The channel was yearly getting more and more choked, and the banks were so covered with high grass and jungle, that if it had not been for the large spoil-bank on either side, the canal would scarcely have been visible. As long as it remained in this state, one of the objects of the enlargement of the Bigaree was mainly defeated, viz. that an early and ample supply of water should reach the camp of Khanghur and rising city of Jacobabad. Major Jacob therefore recommended, in June 1852, that this canal should likewise be enlarged and properly cleared for a distance of fifteen miles.

10. The scheme for enlarging the Bigaree having been approved of, and Rs. 1,30,094-10-0 granted for that purpose, the carrying out of the work was entrusted to the Political Superintendent, Major Jacob. That officer immediately made arrangements accordingly; and, as in his opinion the best means of carrying out the plan, entered into one contract for the execution of the whole work with a respectable man of the country, who had before offered to take it. This person likewise furnished good security in the persons of two wealthy and influential bankers, for the proper and exact performance of his contract, and that the work should be completed to the entire satisfaction of the Political Superintendent.

11. In consequence of its being found that labour could be obtained at a cheaper rate now than when the estimate was first framed, and other points being more clearly known, in giving the contract some change in the original scheme, as laid down in paragraph 7, was made, and the following substituted. The new cut to be carried beyond the mouth of the Noorwah, as far as the village of Kouroja (vide Map). The dimensions to be as follows:—mean breadth at mouth 50 feet, and depth  $9\frac{1}{2}$  feet; at the Noorwali, mean breadth 35 feet, depth  $7\frac{1}{2}$  feet; and at Kouroja, mean breadth 15 feet, depth  $5\frac{1}{2}$  feet; the banks to have a slope of 1 in 1, a berm 8 feet wide to be left on either side, and the excavated earth to be thrown well beyond the berm.

12. Immediately the foundation of 1852 had subsided sufficiently,

the work was commenced by the Contractor, and, on its being visited in December, was found to have progressed very favourably, in spite of the delay that had been caused by the great sickness that autumn in Upper Sind, owing to which workmen could not be procured in any numbers at first. Only a very faint idea can be given by description of the amount of work that had to be done. The enormous heaps of earth that had to be removed from the very edge of the banks of the old canal, the collection of years, in some places, especially where the larger off-shoots left the main feeder, towering to a height of 25 and 30 feet, the dense jungle that had to be cleared away, particularly in the first fifteen miles, before any enlargement could be commenced on,—were in themselves no light tasks, and took up no small portion of the working season. The Political Superintendent, in his report dated 24th December 1852, also says,—

“ I find that the canals leading from the Bigarce on both sides, without any exception, have had their mouths constructed with dams projecting far into the main feeder. In some instances these dams have been made to extend half way across the whole bed of the Bigarce. This practice is most injurious under any circumstances, and liable to the greatest abuse, and has been the cause of much unfairness in the supply of water to the Zemindars, without corresponding benefit to any party.”

These dams were prohibited at once, and, of course, had to be removed, in many instances from the very centre of the canal, to a great distance, clear of the new excavation. To get the work completed if possible in one season, before the rise of the river Indus, the contractor sent in all directions for labourers. These flocked in from every part of the country as soon as the sickness above mentioned had passed away; and when they understood they would receive regular daily remuneration for their work in money, not according to the old system prevailing in Sind, of niggard payments in grain, a gang of 500 men (his best workmen) came from the Chandia Jagheer, to the westward of Larkhana. In spite, however, of the greatest exertions on the part of the contractor, the work could not be thoroughly completed, though very nearly so, before the river rose, and it was necessary to admit the water,—necessary, because so many people in the country, and the troops on the Frontier, were dependant on this source for wholesome water to drink. The

remaining portion of the work, therefore, was left for the ensuing season.

13. On the northern side of the Bigaree, an extensive hollow existed, called the "Sind," which, leaving the Indus a little below Kusmore, joined the Bigaree about ten miles from the mouth of the latter. At this point the bed of the Sind was even lower than the bed of the Bigaree; the water on first entering the latter, therefore, used to run uselessly into the former. To prevent this, a new strong embankment was necessary. Again, as this Sind hollow was occasionally filled from the Indus, it became a matter of importance to make use of the water that would be standing in it, after the river water had ceased to enter the mouth of the Bigaree Canal. For this purpose strong sluice-gates were made in the above embankment, so that when the water in the Bigaree fell below the level in the Sind, the gates could be opened, and by that means the supply in the lower portion of the canal kept up a month longer than it otherwise would be.

14. On the south side, between Khanghur and Bukhtiarpoor, there was also an extensive hollow. To prevent the water escaping from the Bigaree into this, the greatest care had to be taken to make the southern bank as firm as possible, and, where any breaches existed in it, to have very strong substantial bunds made.

15. A bridge consisting of three arches, centre arch 24 feet span, side arches 8 feet each, giving a waterway of 40 feet, and high enough in the centre for the largest boats to go under, was built where the Shikarpoor, Meerpoor, and Tungwance road crosses the canal. Another, of smaller dimensions, in proportion to the size of the canal, was also built on the Jacobabad and Shikarpoor road. Two other bridges, similar to the one on the Meerpoor road, were afterwards sanctioned and built; one on the great road from Shikarpoor to Kusmore, near Shereghur, the other on the road which connects Moobarukpoor with Hummao, on the Shikarpoor road, and near to the first-mentioned place.

16. The above was the work of the season 1852-53. The length of the working season is generally not quite six months, from the middle of October to the beginning of April.

17. A great many applications for lands hitherto waste were now made, and new grants issued by the Political Superintendent, who, in July 1852, had, in addition to his Political and other duties,

the civil charge of the entire district to the north of the Bigaree Canal entrusted to him. The whole of this was now British territory; the lands within it, formerly held by the Meer Ali Morad, having been assumed by the Supreme Government in February of that year.

18. The Political Superintendent, in reporting on the inundation of 1853, remarks,—

“ I may mention here two instances in which the advantages of

From Political Superintendent to the Commissioner in Sind, dated 2nd Nov 1853 (copy annexed)

enlarging the Bigaree have even exceeded my expectations. In the former years, the water from the great ‘ Sind,’ and other hollows north of the Bigaree, at high flood, broke completely across the channel of the canal, swept away its banks, and injuriously overflowed an extensive tract of low country towards Shukarpoor. In order to prevent this, I was, in making the new excavation, endeavouring to strengthen the southern bank of the Bigaree in that neighbourhood by every means in my power; but any provision of this kind appears now to be unnecessary for the enlargement; and above all, the clearance, by removing the dams of the Bigaree, has caused such an increased capacity for drainage in that channel that the water was found to flow strongly into it both ways, from the south as well as the north side, and to be rapidly carried off to the westward. The capacity of the Bigaree has been doubled by the new excavation; but it has been again at least doubled by the removal of the Morees (dams) erected by the Zemindars at the mouths of the private canals leading from the main channel.”

19. The enlargement of the Noorwah, at a cost of Rs. 25,344, was sanctioned in the end of 1852. The season was, however, too far advanced then to commence on it before the inundation set in; but after the water had subsided, the work was entrusted to the same contractor who had the Bigaree, and who had yet to complete that canal. It became thus one work. An additional grant of the sum of Rs. 10,000 was at the same time obtained, for the purpose of extending the Bigaree ten miles further to the westward of Kouroja to where the Jacobabad and Larkhana road passed.

20. The dimensions of the Noorwah where it left the Bigaree were—breadth 12 feet, and depth 7 feet, narrowing to about 8 feet in breadth and 5 feet in depth where the old clearance ended, a

distance of rather more than eight miles. It was now arranged that the capacity of the canal should be increased as follows:—at mouth, mean breadth 30 feet, depth  $7\frac{1}{2}$  feet; where the Boodwah branched off, mean breadth 24 feet, and depth 6 feet; at the extreme tail, mean breadth 19 feet, and depth 4 feet; with banks having a slope of 1 in 1, with a berm of 8 feet wide on either side. The length, instead of only eight, was to be made fifteen miles, the canal being carried on to where it reached the boundary between Sind and Khelat, seven and a half miles to the north of Jacobabad (vide Map).

21. The Boodwah, formerly a most insignificant little canal, was likewise to be cleared from its mouth to the tank in the camp of Jacobabad, a distance of three and a half miles, and increased to a mean breadth of 12 feet; banks sloped, and berm as in the others, with spoil-bank thrown well back.

22. The labour in the execution of this work was not less than that required in the Bigaree: the spoil-bank at the mouth had collected to such an extent as to form a large and most conspicuous mound on either side. The deposit at the mouths of canals is always unavoidably greater than in any other part, from the check in the rapidity of the current which takes place as the water leaves the main channel; the silt then falls and forms a bank. This, however, has been very materially lessened by keeping the tails of the canals well opened, and thereby as much as possible keeping up the rate of the stream. The enormous mounds had to be removed to a distance. The banks of the canals, from long-continued careless clearance, and the action of the water on them, instead of being perpendicular, had gained a concave shape, the upper edge overhanging considerably, while the jungle and grass on either side met over the canal, making the passage along the bed almost impossible. When the works were visited in February 1854 by a party from Jacobabad, they experienced considerable inconvenience in an attempt to ride along the bed. Since its enlargement, the largest coaches might be driven in it with the greatest ease, and in the inundation, boats of the heaviest burden now come up the Bigaree and Noorwah to Surkey-ka-Koo, which has become "the bunder" of Jacobabad.

23. In one part of its course, near Ahmedpoor, the Noorwah crosses a considerable hollow, where the level of the country is much below the level of the bed of the canal. To convey the water safely beyond this hollow, strong and well made embankments were



requisite: these were most satisfactorily made by the contractor, and the water the very first season of admission was steadily kept within its own channel. Nearer the extreme tail, where the canal approaches the "Desert" (or what was once the Desert,—now land richly cultivated), the level of the country is so low that the sides of the canal had to be carefully and firmly banked up, to prevent the water flooding the whole plain, and so being wasted. The mere excavation on our part ended, as above mentioned, at the Khelat boundary, near Oomer Khan-ka-Gote; but, at the suggestion of the Political Superintendent, the Khelat authorities carried it on a considerable distance further into the Desert, having obtained permission from him to draw as much water as they liked and could get from the tail of the Noorwah. Many new canals were taken from this feeder by the subjects of the Khan, and were the means of bringing under cultivation a considerable extent of new land, on which formerly scarcely a sign of vegetation could be seen. These lands being thus watered from the Indus, half the revenue realised on them is paid to the British Government, the remaining half being taken by the Khan.

24. Within our own territory, also, many new canals were cut from the Noorwah, and villages have since sprung up, where not many years back the inhabitants of the country scarcely ventured to take their flocks, and then in fear and trembling lest they should be swept off by the Belooch plunderers.

25. On the 1st April 1854, the work having been reported as completed, the Political Superintendent, Major Jacob, proceeded to inspect it thoroughly, and could not help feeling highly satisfied with the excellent manner in which it had been performed by the contractor. This man, a common Sindhee Maistree by trade, had of himself, unaided, save by the instructions and general directions given him by the Political Superintendent, completed seventy miles of canal excavation and embanking; had performed the work in a way fully meeting the approval of so critical a judge as the Political Superintendent, Major Jacob; and, indeed, had executed the whole work in a manner that would have done credit to a person of scientific education.

26. To keep up the communication between either side of the Noorwah, bridges were thrown across at the following places: at Goolam Ali-ka-Gote, on the Abad and Moobarakpoor road, a bridge of three arches, the centre arch having 16 feet of waterway; at

Surkey-ka-Koo, on the Jacobabad and Moobarukpoor road, a bridge of one arch, elliptical, of 24 feet span; on the great Frontier road a similar one; and four at different points lower down, having single elliptical arches, with span equal to the width of the canal, the last being at the boundary line on the road from Jacobabad to Shahpoor.

27. The Indus water was admitted into the Bigaree on the 13th April, and reached Jacobabad, a distance of fifty miles, in sixteen hours: before the clearance, the time used to be from four to five days. The supply of water was even too plentiful, for on the 15th it had filled the canal and tanks at Jacobabad to overflowing, and threatened the safety of the town and camp. The mouth of the Boodwah had to be closed, and a strong sluice-gate made, so as to regulate the supply of water. For the remainder of the season of high flood, two feet of waterway were found amply sufficient to keep the canal as full as it should be.

28. In reporting on the inundation of 1854, the Political Superintendent remarks that—

“At the tail of the Bigaree lies a very extensive tract of land, which is now, and always has been, a desert, but which lies low, and which, with a full supply of water, would be capable of rich cultivation, and prove very productive with the smallest possible amount of labour. This land is always in great demand, and could the supply of water be increased four-fold, the present means in regard to population, &c. suffice to employ every drop of it most profitably to Government.”

He therefore proposed that the tail of the Bigaree should be enlarged and extended some distance further to the westward, at an outlay of Rs. 30,000. He mentions that he had endeavoured to get the Zemindars to undertake the work themselves on their own account, and with their own private means; but though the certain profit was a most tempting inducement, yet they could not raise sufficient capital save at ruinous interest; wherefore he strongly recommended the work should be undertaken and executed by Government.

29. This project, if approved by Government, could not, however, be carried out during the season of 1854-55. The Zemindars, therefore, knowing well the value of every drop of water they could obtain, clubbed together, and of themselves made a small and shallow cutting in continuation of the Bigaree from the Larkhana road to a

distance of about twenty miles to the westward. Unfortunately, the inundation of 1855 proved a very poor one indeed, and the supply of water that reached the new cut was barely sufficient for a few crops at the upper portion,—scarcely any reached the lower part; so that they did not immediately derive much benefit from their work, though in the end it proved of considerable value, being so much of the proposed work already completed, and thereby allowing of the capacity of the canal being made so much larger than it otherwise could have been made for the sum applied for.

30. The sanction of Government for the expenditure of Rs. 30,000 having been given, a plan for carrying out that work was laid down by the Political Superintendent as follows :—

*“ Memorandum regarding the proposed Enlargement of the Tail of the Bigarcc Canal.*

“ The canal to be not less than 24 feet wide at bottom throughout the whole length, from the bridge on the Shikarpoor and Jacobabad road to the end of the tail of the canal where it reaches the Khelat boundary near Khyra Ghurec, the whole distance being about thirty-two miles. The depth of the canal to vary gradually, according to the level of the country, that the channel may be of regular slope throughout, free from irregular rises and falls. The depth below the level of the country to be 8 feet at the bridge on the Shikarpoor and Jacobabad road, and 4 feet at the end of the canal at the Khelat boundary. The breadth at bottom being 24 feet throughout, the breadth at top, at the level of the ground, will be, at the bridge on the Shikarpoor road 56 feet, and at the end of the canal 40 feet. The earth excavated to be thrown back and spread out into a broad regular flat surface, not more than 2 feet in height above the level of the country.

“ The canal, as it exists at present, is 20 feet wide at bottom at the point where the new excavation is to commence, 8 feet deep, and 36 feet wide at top. At the Larkhana road, where the present channel ends, distant from the point above mentioned fourteen miles, the dimensions of the canal now are 23 feet wide at top, 13 at bottom, and 5 feet deep. The mean sectional area of the existing channel is 157 square feet.

“ Its cubic contents  $157 \times 73,920 = 11,605,440$ .

“ The mean sectional area of the new canal will be 224 sq. ft.

" Its mean cubic contents  $224 \times 168,640 = 37,775,360$ .

" Total entire contents of the new excavation to be made, being the difference between the old and new channels,  $37,775,360 - 11,605,440 = 26,169,920$  cubic feet, giving, at Rs. 30,000 total cost, 872·33 cubic feet per rupee.

\* \* \* \* \*

(Signed) " JOHN JACOB, Major,  
" Political Superintendent, Frontier Upper Sind."

31. It was proposed that, instead of having the work performed by contract, an attempt should be made to induce the Zemindars holding, or wishing to hold lands on that part of the canal, themselves to undertake the task, so that whatever advantage might be derived from it, whether from increased supply of water or the spreading of so much ready money among their people, they would gain the whole benefit.

32. These Zemindars were accordingly summoned to Jacobabad, the matter fully laid before them, discussed and explained to them for several days, and when they thoroughly understood the nature of the work they would have to perform, they were asked would they undertake it? They at once consented, and most cordially entered into the scheme. An agreement was accordingly drawn up, the terms of which were as will be shown presently.

33. In the first instance, the old canal was carefully measured, from the point where the new excavation was to commence up to where the Zemindars had cleared of their own accord during the past season. This measurement was very correctly made by a Moonshee belonging to the Kardarate of Jacobabad. Having thus obtained the dimensions of the old canal, the amount of excavation required could be calculated exactly, and it was found that the whole, including the removal of the old spoil-bank, which had been omitted in previous calculations, and the continuation to the Khelat boundary, could be completed at the rate of about 930 cubic feet per rupee. This rate sounds high,\* but will not appear so when it is mentioned that the labourer was the person to be immediately benefited by the work, and that the work was to be so apportioned that each individual's share should be near to his land and his home, so that in carrying on his

\* That is, that the amount of work done per rupee appears very great.

task steadily and quietly during the five months given, every member of his household might aid a little, and thus render the burden light on all, while all benefited by the receipt of a certain sum of ready money. That the rate was not too high is evinced by the readiness with which it was adopted.

31. The principle of the arrangement entered into was as follows:—Each Zemindar was to perform a certain portion of the work, in proportion to the area of land he held which would be watered from the new canal. A list of the Zemindars was then drawn out, showing the tenure of each. The total number of beegas of land in possession being thus obtained, viz. 233,710, and the amount of excavation being before known, viz. 26,269,920, the number of cubic feet per beega was determined at once, and found to be 112·4; 900 cubic feet of excavation corresponding almost exactly to the Native measurement of one “kanah,” or 7½ feet in length of the required cutting; the term kanah was used in the agreement that it might be more easily understood by the Zemindars. It was shown them that they would receive for every kanah one rupee. The whole was to be executed in one season. If any Zemindar, by reason of indolence or carelessness, should not have his portion completed in time, it would be taken in hand by the Government authorities, and any expenditure incurred over and above the amount set down in the list as his share would be recovered from the defaulters; each lot was to be carefully marked out with a standard kanah by the Kardar of Jacobabad the moment the subsidence of the inundation admitted of the work being commenced, and each Zemindar was then to receive one-third of his share of the money; another third was to be paid on the work being half finished, and the remainder when it was properly and satisfactorily completed.

35. The above having been fully explained to the Zemindars, they all appended their signatures to the agreement as early as the month of May 1855, so that everything was settled long before the working season, and the Zemindars had plenty of time to make their own arrangements.

36. The length of excavation apportioned among the Zemindars amounted to 168,640 feet, to carry the canal to the Khelat boundary; there was a further distance of 16,160 feet which was taken in hand by the Government officers.

37. To watch and assist the Zemindars in the work, a Daroga,

two Maistrees, and six Puttawallas were entertained, at a monthly outlay of Rs. 94, and this, with the general superintendence of the Kardar of Jacobabad, was the only supervision employed throughout the whole period.

38. The inundation of 1855 being a very short one, the canal was quite dry early in October, and the lots were then marked out so as to admit of the work being commenced as soon as possible.

39. In the end of December I proceeded to inspect, from Khyra Ghurce upwards, the progress that had been made. I was then able to judge thoroughly, even had I not been before aware how great and how severe the task was these people were engaged in, and I observed with the greatest pleasure and satisfaction how excellently well they were carrying on the work, and how vigorously they were devoting their energies to it. In the lower part, between Khyra Ghurce and the Larkhana road (the portion which the Zemindars the previous year had slightly cleared of themselves), though there was little spoil-bank, yet the amount of excavation was greater than in the older canal, and in some places had to be performed under the greatest difficulties. In one part the soil would be all fine loose sand, where the banks would crumble and fall in as fast as they were made, and one dust-storm would nullify the work of days, by blowing the sand back into the hollow just dug; in another part the soil would be more like rock, and in place of being easily cut and removed by means of the "powra" (or kind of large bladed hoe in common use in this country), it had to be gradually loosened, and taken out in blocks like stone. This was especially the case in one spot, part of the share allotted to one of the Belooch settlers, Dad Mahomed Khan, Jukranee, nephew of the Chief of that tribe,—quite a young man, still one whose earliest years had been spent only in the exciting employment of successful plunder. In the year 1844 he had been a principal performer in the sack of Kumber, a village only fourteen miles from Larkhana. This man, with his two brothers and their people, pointed to the soil almost in despair. When the powra touched the ground, it recoiled as if from hard rock; yet, with a little encouragement, these men steadily persevered, and ultimately finished this piece in a manner that was in no way inferior to any part in the whole work, and, when the final inspection took place, pointed with just and honest pride to the success of their

continued efforts, and to the manner in which they had overcome the difficulty.

40. From the Larkhana road to the village of Kouroja the work of excavation was great : from being of recent construction, the spoil was slight, but the original capacity of the channel was very small, wherefore the enlargement to be effected was considerable. Each lot had its busy gang of workmen, who strove one to outdo the other in the rapidity and exactness with which they would perform their task, and, by their cheerfulness and good humour, materially encouraged one another. People of every class were thus employed,—Sindhees, Brahooes, and Beloochees. The Jukranees and Kundranees, Belooch, who were brought from Kutchee by Sir C. Napier after his hill campaign in 1845, held a large tract of land watered from the Bigaree Canal to the westward of the Shikarpoor road, so that a considerable portion of the work in this part fell to their share. By the beginning of January the Jukranees had half finished their task. Among the labourers employed in their gang was one whose face seemed familiar, and on inquiry I found him to be a man by name Nooroodeen\* (by tribe a Boogtee, but for some time past resident with the Jukranees), who in 1842 was considered one of the most expert and successful plunderers on the border side. Here was he now, with, in place of a sword, a peaceful hoe in his hand, and in place of applying his intelligence and strength towards rapine and murder, was devoting both with the utmost cheerfulness in the cause of peace and productiveness, and was proud and delighted at his exertions being favourably noticed and properly appreciated.

41. The old Bigaree had from years back always been carried as far as Kouroja; the spoil-bank, therefore, that had collected and required removal in this part, was very great, especially at the mouths of two large canals, the Meerwah and Moradwah. At the latter, the mounds on either side of the mouth were as high as a full-grown "bair" tree growing close by. The whole of this had to be thrown back to a distance. The course of the channel here, too, was very winding, which had to be remedied as much as possible.

\* *Note by Lieutenant Colonel Jacob.*—This Nooroodeen was a notorious leader of the predatory tribes of Kutchee and the neighbouring hills; he repeatedly plundered our convoys during the first Afghan war, and was frequently pursued by, but always escaped from my horsemen, during 1841-42.

42. By the 1st June the new excavation was completed as far as the village of Vukkra,—eight miles,—but a portion of the lower part being yet unfinished, the water could not then be admitted further. On that day I proceeded with the Acting Assistant Political Superintendent, Lieutenant Briggs, and inspected the work from the bridge on the Shikarpoor road to Vukkra, taking a series of levels as we went along; the average fall proved to be 7·12 ins. per mile. By the 1st August the remainder was reported ready to receive the water, though the spoil-bank in some places had yet to be spread out evenly. This part was likewise carefully inspected to the extreme tail near Khyree Ghuree, and was found completed to my entire satisfaction; in no one spot was the work found to be under the specification. It was intended that the levelling should have been continued to the end of the canal, but the season was so far advanced, and every day of such vital importance, I did not consider myself justified in keeping the water out one moment longer than was necessary.

43. The Bund at Vukkra was cut at 7 A. M. on the 3rd August, and the water reached the furthest extremity, a distance of twenty-seven miles, by 5.30 P. M., and rapidly filled the canal. The water was then allowed an exit by the only offshoot there, the Edenwah, a canal recently excavated by Lieutenant Ford, Deputy Collector of Larkhana, for the purpose of irrigating lands in his district, which joins the Frontier one at Khyra Ghuree. The current in the Bigaree and Edenwah throughout the remainder of the season was very rapid, running at the rate of nearly three miles an hour, showing that the fall in the lower part was as great, if not greater, than it was found to be up to Vukkra, above shown.

44. Great fears were entertained by the Zemindars on the Noorwah and other large branches, that drawing off so large a quantity of water to the tail of the Bigaree would cause an excessive and dangerous diminution in the level of the water in the canals they were dependent on. This, however, did not occur in the slightest degree,—there was no perceptible difference in the level, and the supply remained equally abundant as before; the only alteration being a considerable increase in the rapidity of the current in the main channel.

45. From the above, a fact of great importance in carrying out irrigational works has been learned and proved, viz. that without altering the capacity of the upper portion of a canal, merely having it



clear and free of impediment, you may double the capacity of the tail, without lowering the level of the water in any part one inch. Besides giving an abundant supply of water, this plan of canal cutting has the further great advantage, by the increased rapidity of the current, of preventing the deposit of silt in the channel, by causing it to be carried on and spread over the lands at the tail. I believe hitherto the custom has always been to reduce the capacity of the main feeder in proportion to the number of the branches taken from it; the above fact would prove this to have been a mistaken system, as regards irrigation from the Indus. But this point I leave to others better qualified to discuss it, merely wishing to draw attention to what has here been practically proved.

46. Lieutenant Ford has lately proposed to still further enlarge and extend the canal above mentioned—the Edenwah. The execution of this work is certainly desirable: it will be the means of bringing under cultivation a large tract of country, that has been lying waste for years for want of water, and reclaim a considerable portion of what has hitherto been but too justly styled a barren wilderness, without injuriously affecting the supply of water for the lands above.

47. The subjects of His Highness the Khan of Khelat also propose carrying several canals from the extreme tail at the boundary line into the Desert west of Khyra Ghuree, so that, in a few years, this tract of country will no longer merit so dreary a name.

48. The Bigaree now presents a channel navigable by the largest boats on the Indus from end to end, a distance in a straight line of rather more than seventy-six miles. Recently, on the occasion of a present of artillery, arms, and ammunition being sent by the British Government to the Khan of Khelat, these stores, instead of having to follow the old land route from Sukkur *via* Jacobabad to Gundava, a journey of one hundred and twenty miles, were conveyed by boats from Sukkur up the river to the mouth of the Bigaree, and then were floated down to Khyra Ghuree, at the very end of the canal, which they reached without the least difficulty or the slightest accident. The time taken in the river was two days, and two days in descending the canal. The astonishment of the people of the country was very great, and they flocked from all directions to see the fleet of sixteen boats in the heart of the Desert, where boats never had been before. Khyra Ghuree has now become the bunder of Gundava, from which

it is distant only three marches (about forty miles), as Surkey-ka-Koo, on the Noorwah, is of Jacobabad. The berm on either side of the canal, in addition to its use as a tow-path, forms also a very good roadway for travellers from one end to the other.

49. To keep up the communication, and to prevent the banks being injured during the dry season, by men and cattle crossing, more bridges than are mentioned in the first part of this report were found necessary, and sanction was obtained for six others. These bridges were built during the past season by the same contractor who executed the work of the first Bigaree excavation. Those in the upper part of the canal are made with one elliptical arch, 40 feet span; one near Vukkra, 24 feet; and all have remained perfectly uninjured throughout the whole past inundation. The sites of these bridges are marked in the accompanying Map.

50. Since the enlargement of the Bigaree, several new villages have sprung up, even in the hitherto desolate region through which the lower portion is carried (*vide* Map); also a very large number of branch canals have been cut by the Zemindars to water the land about to be brought under cultivation for the first time.

51. The advantages derived from so extensive an enlargement of the Bigaree Canal are of course numerous; the principal one, being the increase of revenue, and consequent improvement in the condition of the people, requires first notice. In 1851-52, the gross revenue derived from both sides of the Bigaree and its branches amounted to about Rs. 65,000,—the exact amount cannot be given, as part of the country then belonged to Meer Ali Morad, and was farmed by him to a Native for a round sum. The very next year, 1852-53, the Bigaree had only partly been completed, and one crop produced from its water; the revenue increased to Rs. 73,127; last year it amounted to Rs. 1,18,576; and in 1857-58 it is estimated that this will further be increased to upwards of a lakh and a half. Since 1852, nearly two lakhs of beegas have been at different times given away in grants by the Political Superintendent, under the terms of the new revenue settlement introduced in the Frontier districts, that is, that an annual tax of Rs. 1-4-0 per beega should be levied on one-third of the land in possession; but to enable the Zemindar to meet the expenses he must incur in digging new canals, clearing the ground, &c., he was allowed the first year free; the second year he would pay annas 15; and afterwards the full tax of

Rs. 1-4-0. In 1857-58 full tax will be leviable on all the new grants; wherefore the revenue for that year can be pretty correctly estimated.

52. Another great advantage must not pass unnoticed; and that is, the effect the greatly increased supply of fresh water brought into the country has had on the wells. In 1847, before the rise of the Indus, the well-water in the camp at Khanghur (now Jacobabad) became so intensely salt that the horses even would scarcely drink it, and it had undoubtedly the worst effect on those who did, the loss in horses that year being very great. Now the water in the wells remains as sweet and pure as may be found in any well in the immediate vicinity of the river itself, and the same effect has been produced in the district generally. Further, owing to the much greater quantity of water that yearly soaks into the ground, the depth at which it is first found has been decreased 7 feet,—from 45 to 38. To aid in the introduction of as much fresh water as possible, the Political Superintendent has had two large tanks excavated, one of which last year never became dry, holding water all the year round.

53. Before closing this report, I beg strongly to bring to your notice the excellent conduct of the Kardar of Jacobabad, Khyr Shah, during the time the work of the enlargement of the tail of the Bigaree was going on; and I may honestly, and with but justice say, that it was mainly owing to his unwearied energy, his steady perseverance, and his constant activity up to the very last, even in the hottest weather, that this great work was successfully completed in so short a time.

54. I have the honour to forward herewith a Map of the country through which the Bigaree passes, and sections of the new excavation. I have also to express my regret that this report has been unavoidably delayed so long.

I have the honour to be, &c.

(Signed) W. L. MEREWETHER, Captain,  
Acting Political Superintendent, Frontier of Upper Sind.

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*Statement showing Amount of Excavation in the Enlargement and Extension of the Tail of the Bigaree Canal.*

*Sections of Canal prior to being enlarged.*

|   | Sq. feet. |
|---|-----------|
| Area of Section No. 1 (20 × 8) + (8 × 8) .....    | 224       |
| „ „ No. 2 (13 × 5) + (5 × 5) .....                | 90        |
| „ „ No. 3 (11 × 2) .....                          | 22        |
| Mean sectional area previous to enlargement ..... | 112       |
| Length of canal ditto ditto .....                 | 168,640   |
| $112 \times 168,640 = 18,887,680$ cubic feet.     |           |

*Sections of Canal after being enlarged.*

|  | Sq. feet. |
|--|-----------|
| Area of Section No. 1 (24 × 8) + (16 × 8) .....                                | 320       |
| Mean area of spoil-bank removed between Shikarpoor<br>and Larkhana roads ..... | 170       |
| <hr/>  |           |
| Total areas in No. 1 ..  | 490       |
| Area of Section No. 2 (24 × 6) + (12 × 6) .....                                | 216       |
| Area of Section No. 3 (24 × 4) + (8 × 4) .....                                 | 128       |
| Mean area of spoil-bank removed between 2 and 3 .....                          | 50        |
| <hr/>  |           |
| Total ..   | 178       |
| Area of Section No. 4 (24 × 4) + (8 × 4) .....                                 | 128       |
| Mean sectional area after enlargement .....                                    | 253       |
| Length of canal ditto ditto .....  | 184,900   |

$253 \times 184,900 = 46,779,700$  cubic feet.

$46,779,700 - 18,887,680 = 27,892,020$  cubic feet of new excavation.

*Rate*, at an expenditure of Rs. 30,000, is cubic feet 929.734 per rupee.

(Signed) W. L. MEREWETHER, Captain,

Acting Political Superintendent, Frontier of Upper Sind.

*Political Supt.'s Office, Camp Khyra Ghuree, 21st October 1856.*

To the COMMISSIONER IN SIND, Kurrachee.

*Dated 1st April 1851.*

SIR,—In accordance with instructions received from you, I have the honour to forward herewith an estimate of the cost of enlarging the Bigaree Canal.

I have the honour to be, &c.

(Signed) JOHN JACOB, Major,  
Political Superintendent on the Frontier of Upper Sind.

ESTIMATE.

| Present.  |             |           |             | Proposed. |             |           |             |
|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|
| Breadth.  |             | Depth.    |             | Breadth.  |             | Depth.    |             |
| At Mouth. | At Noorwah. | At Mouth. | At Noorwah. | At Mouth. | At Noorwah. | At Mouth. | At Noorwah. |
| 24 feet.  | 18 feet.    | 9 feet.   | 7 feet.     | 40 feet.  | 30 feet.    | 11 feet.  | 8 feet.     |

Total length of Bigaree, from its mouth to Noorwah..... feet 183,000  
Mean breadth of present canal ..... „ 21  
Mean breadth of proposed canal ..... „ 35  
Mean breadth of new excavation ... „ 14  
Mean depth of new excavation ..... „ 9½  
Proposed mean increase in depth of the old part of the canal ..... „ 1½  
Area of section of new excavation,  $14 \times 9\frac{1}{2} + 21 \times 1\frac{1}{2}$  ..... = square feet 165  
Cubic contents of new excavation =  $165 \times 183,000$  ... = cubic feet. 30,103,500  
Total cost, at 216 cubic feet per rupee ..... Rs. 1,30,094

(Signed) JOHN JACOB, Major,  
Political Superintendent on the Frontier of Upper Sind.

NOTE.—The water of the Bigaree Canal is shared by His Highness Meer Ali Morad and the British Government, very nearly in the proportion of ten to the former and twenty-seven to the latter.

The new excavation will be rather more than in that proportion in favour of the British Government, because nearly all the lands to the westward of the Noorwah belong to us; wherefore I am of opinion that a fair division of the cost of the proposed excavations will be as one to three, that is three-fourths to be paid by the British, and one-fourth by His Highness Meer Ali Morad. This gives—

British share.....Rs. 97,570  
Meer Ali Morad's..... 32,524

(Signed) JOHN JACOB, Major,  
Political Superintendent on the Frontier of Upper Sind.

To the COMMISSIONER IN SIND, Kurrachee.

*Dated 21st April 1851.*

Sir,—In compliance with instructions contained in your letter No. 541, of the 11th April, to my address, I have the honour to forward a rough estimate of the increase to cultivation and revenue which may be expected to accrue from enlarging the Bigaree Canal.

2. The advantages will, I am well assured, not be less than I have set forth in this estimate, but may probably be greater.

3. The plentiful supply of good drinking water for man and beast, and of improved grazing for the cattle, are also advantages which must ultimately add considerably to the revenue, although the amount cannot well be estimated.

4. As connected with this subject of the Bigaree Canal, it appears proper to bring to your notice the great advantages which would accrue from freely admitting the Indus water into the extensive hollow known by the name of the "Sind," which leaves the Indus near Kusmore, and nearly joins the Bigaree at Shereghur.

5. This canal has been wholly or partially bunded for nearly twenty years past, but even now, at high floods, its water sometimes reaches the Bigaree.

6. I am informed that formerly, when this channel was free, the water was not only brought in a very much larger stream into the Bigaree, but spontaneously overflowed the lands about Nehal, Zurkeyl, Duklee-ke-Ghuree, Khanpoor, &c., and even those close around Shikarpoor; and that such was the effect of this inundation that the water in the wells about Shikarpoor, and in the tract of country above mentioned, stood permanently about eight feet nearer the surface than at present.

7. This inundation is said to have extended also to Jaghun and the westward. The best informed of Zemindars, and others likely to be acquainted with such matters, assure me that if this inundation were again to take place annually, the profit to the revenue would be not less than a lakh of rupees.

8. The cost of freely opening the channel would be, I am assured, trifling in proportion. The bunds across this channel or hollow (the Sind) are chiefly in the British territory of Kusmore, where it leaves the river near Ghehulpoor; the remainder of the Sind is in the territory of His Highness Meer Ali Morad. Knowing the great

advantage which would accrue from re-opening this channel, I last year induced the officers of His Highness the Meer to cut a new entrance into the Sind near Budanee. When the wheat, which is now extensively grown in the bed of the hollow, shall have been reaped, the water will be admitted ; but the new cut is but 30 feet wide, and about 6 feet deep, while, to produce the full effects above mentioned, a very much larger mouth is necessary, and, certainly, the removal of the bunds across the old natural channel appears to be the best method of effecting the object in view.

I have the honour to be, &c.

(Signed) JOHN JACOB, Major,  
Political Superintendent on the Frontier of Upper Sind

*Estimate of the probable Permanent Increase of Cultivation and Revenue, after the lapse of a year or two, caused by the proposed enlargement of the Bigarce Canal.*

|  | Probable<br>Increase of<br>Cultivation,<br>Bee-gas | Probable<br>Increase of<br>Revenue<br>Rupees |
|--|--|--|
| From the Meerzawah to the Hazarwah inclusive, on the north side of the Bigarce, the lands all belong to the British Government in that district, in the Purgana of Moobaruk and Meerpool, the amount of lands now lying waste, which would be brought under cultivation if the supply of water from the Bigarce were sufficiently increased, is about .....  | 30,000   | 36,000                                       |
| The whole of the lands to the eastward and northward of the Moradwah, forming the Roopa Purgana, &c., belong to the British Government. The lands lie very low, and are capable of cultivation to any extent for which the supply of water may suffice. The greater part of this tract of country is now lying waste for want of water, the increased supply of which would bring under cultivation at least ..... | 40,000   | 48,000                                       |
| The lands of Chodea and Sokra are Jageer, belonging to Meer Mahomed ; these are now worth about Rs. 3,000 per annum : the increased supply of water would make them worth about Rs. 7,000 .....  | ...  | 4,000  |
| The lands of the Abdalwah, near the village of Ummow, are shared half by the British Government and half by one Shere Sing ; they are worth about Rs. 1,000 per annum : with the increase of water they would be worth about Rs. 2,000 .....   | ...  | 1,000  |
| <b>Total increase on lands belonging to the British Government.....</b>  | <b>Rs.</b>   | <b>89,000</b>                                |

|   | Beeegas.     | Ruppes. |
|---|--------------|---------|
| From the mouth of the Bigaree to the Souewah inclusive, the lands belong to His Highness Meer Ali Morad. There is a large piece of country which might be, and which was formerly cultivated in this district, but the lands are highly cultivated compared with those along the course of the Bigaree further from the river, and the increased supply of water would not bring an annual profit from these lands of more than ..... | ...          | 24,000  |
| The Noorwah and its branches belong wholly to His Highness Meer Ali Morad : much low land of good quality is within the reach of its water, and the waste lands which would be brought under cultivation from its irrigation on the increase of the Bigaree could not amount to less than .....   | 5,000        | 6,000   |
| Total increase of revenue to His Highness Meer Ali Morad .....  | Rs. 30,000   |         |
| Total increase of revenue to the British Government .....   |              | 89,000  |
| Grand Total ....  | Rs. 1,19,000 |         |

(Signed) JOHN JACOB, Major,

Political Superintendent on the Frontier of Upper Sind.

*Khanghur, 21st April 1851.*

No. 9912 OF 1851.

REVENUE DEPARTMENT.

TO H. B. E. FRERE, Esq.,

Commissioner in Sind, Kurrachee.

*Dated 15th October 1851.*

SIR,—Adverting to your letter of the 10th June last, No. 1065, with accompaniments, I have been directed by the Right Honorable the Governor in Council to transmit for your information the accompanying copy of a despatch from the Secretary to the Government of India with the Governor General, No. 337, dated the 24th ultimo, relative to the proposal for widening and deepening the Bigaree Canal, in Upper Sind.

2. The work, I am to state, cannot be commenced at any rate until a reply is received from the Honorable the Court of Directors to the reference which the Most Noble the Governor General is about to make. In the mean while, it is desirable that you should consult Captain Turner, and report as to the advisableness and possibility of obtaining further information than has been afforded by Major Jacob as to the advantages likely to result from the work, and its probable cost.



3. The Governor in Council is likewise desirous of being informed if cultivators for so large an increase of cultivation are likely to be found on the terms estimated; also, whether the increased volume of water from the proposed enlargement of the canal is likely to suffice, as deducible from the extent of the existing irrigation, with many other points: for instance, as to how the levels have been ascertained, &c.

4. In Major Jacob's estimate, dated the 31st March last, there are apparently errors, which have been corrected in red ink in this office, so as to show the amount is Rs. 1,39,368-10-0 instead of Rs. 1,30,094.

5. As regards the suggestion for the removal of the bunds in the Sind, the Governor in Council, I am to state, would not authorise its adoption without being satisfied that the country at Shikarpoor or elsewhere would not be rendered unhealthy by the inundation.

I have the honour to be, &c.

(Signed) A. MALET,  
Chief Secretary to Government

No. 337 OF 1851.

HOME DEPARTMENT.

To H. E. GOLDSMID, Esq.,

Secretary to Government, Bombay.

*Dated 24th September 1851.*

SIR,—The Governor General having had under consideration the papers submitted with your letter No. 8718, dated the 1st instant, relative to the widening and deepening of the Bigaree Canal, in Upper Sind, directs me in reply to make the following communication.

2. The Governor General can have no hesitation in expressing his cordial approval of the general proposal for widening and deepening the irrigation canal above adverted to, when so many, so great, and such immediate advantages may be expected from it.

3. The question of estimate, calculations, &c. are details for which the Government of Bombay is responsible, and which His Lordship leaves to the Right Honorable the Governor in Council, without interference on his part:

4. If the work can be executed for anything like the sum named, and if it be likely to produce anything like the return anticipated, its early execution is very desirable.

5. Adverting to the very peculiar relations existing at this moment between the British Government and His Highness Meer Ali Morad, whose consent will be necessary to the commencement of any operations on this canal, which partly passes through his territory, and adverting, further, to the probability that instructions will, within a very short time, be received from the Court of Directors, which will indicate the measures to be adopted by the Government of Bombay towards His Highness, the Governor General would advise the Governor in Council not to open the question with His Highness at the present moment.

6. This act of caution cannot involve a delay of any consequence. In the mean time, the necessary sanction of the Court of Directors to the proposed expenditure will be sought.

I have the honour to be, &c.

(Signed) H. M. ELLIOTT,  
Secy. to the Govt. of India, with the Governor General.

(True copy)  
(Signed) A. MALET,  
Chief Secretary to Government.

To the COMMISSIONER IN SIND, Kurrachee.

*Dated 24th November 1851.*

SIR,—I have the honour to acknowledge the receipt of your letter No. 2411, of the 17th November 1851, to my address, with accompaniment, and with reference to its subject to state:—

1. That in my opinion there is little room to doubt that cultivators will be forthcoming in numbers amply sufficient to meet the increased cultivation consequent on the proposed enlargement of the Bigaree Canal.

2. Some years ago I should, from all that I knew of the country and of its inhabitants, have had most serious doubts on this point; but the changes which have taken place in the state of the

country during the last five years (as surprising to me as they are to the Native inhabitants) suffice, in my opinion, to remove from my mind all doubt in the matter.

3. The number of inhabitants of the village of Jacobabad, I am informed by good authority, now equals that of those of the town of Larkhana. Very few of these people are from other parts of Sind; nearly all are immigrants from Kutchee, from Beloochistan, from the hills north of Kutchee, and some few from the Punjaub.

4. With the sole exception of the Murrees, *all* the tribes, of hill and plain (and even all the individuals of those tribes save eight or ten notorious robbers), who formerly followed only the profession of arms, and made plunder their chief occupation, have now taken seriously to peaceful pursuits: robbery having ceased to be successful is now fast ceasing to be respectable and fashionable among the Beloochees, and this change, of which we have as yet seen only the commencement, must alone, it appears to me (judging from what has already occurred), cause an increase in the available labour in the country sufficient to meet the increased demand.

5. The return of the Doombkees from Khyrpoor to their native country, and the town of Lharee, which has lately taken place, will, I have little doubt, be attended with the happiest effects on that part of Kutchee.

There is little or no probability of these people resuming their predatory habits, but they will enable their Chief, Belooch Khan, most effectually to protect his town (Lharee) and lands from the incursions of the Murrees, who, since the removal of Beejah Khan, with so large a portion of the Doombkee tribe, to Khyrpoor, have been in the practice of laying waste that country, and have thrice sacked and once burnt the town of Lharee itself.

6. The peace and prosperity of Kutchee again greatly affect the supply of labour available for the cultivation of lands on the British side of the border, for at seed-time and harvest great numbers of labourers appear (from time immemorial, whenever the country has been tolerably quiet) to have been in the habit of proceeding from one province to the other, to afford their aid to the farmers.

7. When making inquiries about the enlargement of the Bigaree, I conversed on the subject with some of the oldest, most respectable, and apparently best informed Zemindars of the country. They had no doubt whatever about the advantages to Government of the proposed

scheme ; and it was chiefly on information received from them that I formed my own opinions on the matter.

The demands for an increased supply of water for the lands now under cultivation, especially those irrigated by canal from the Noorwah (a principal branch of the Bigaree), are most pressing. The disputes and quarrels which consequently arise are sometimes most violent, and, in the season of the inundation, are brought before me daily, and even hourly.

The enlargement of the Noorwah, which would, of course, follow that of the main feeder, would bring half the Desert under cultivation. More might be adduced pertinent to the subject of the supply of labour, but what is set forth above may be sufficient, and I wish to avoid troubling Government with unnecessary matter.

With regard to the levels, there is no doubt whatever about this part of the business, as the water flows rapidly along the present channel of the Bigaree, runs freely into all the canals from it, and at the tail of the present canal the ground falls rapidly, so that the water, if allowed to do so, would run over the surface of the ground.

The water of the Noorwah, a little beyond Ahmedpoor (a small village lately re-inhabited, one koss north-east of Khanghur), requires to be banked up, instead of having canals dug for it.

With respect to the estimate of cost of the proposed undertaking, it seems that there was an error in my figures, but independently of such errors, precise correctness was not pretended by me ; neither does it appear that the general question is at all affected by the work costing a few thousands of rupees, or of pounds, more or less.

As it was, I formed my rough estimate of the outlay, and of the pecuniary value of the advantages likely to ensue from the work, chiefly on the opinions and representations of well-informed Natives of the country ; and as regards my estimate of the cost, I considered it to be tolerably safe, inasmuch as a respectable and sufficiently wealthy inhabitant of Shikarpoor, accustomed to such works, expressed his willingness to undertake the execution of the work by contract, at the rate mentioned by me, and to give ample security for its due performance.

I have the honour to be, &c.

(Signed) JOHN JACOB, Major,

Political Superintendent on the Frontier of Upper Sind.

To the COMMISSIONER IN SIND.

*Dated 29th June 1852.*

SIR,—With reference to Major Turner's letter No. 1111, of the 5th June 1852, to your address, and your endorsement thereon to mine, I have the honour to point out that, with deference and under submission, I have a strong opinion that the mode of executing the work of enlarging the Bigaree Canal, recommended by Major Turner, by numerous separate contracts, is by no means the best.

This method would require much superintendence,—more, indeed, than I could give to the work ; it would also cause considerable delay, and would not afford good security for the whole being properly executed.

I should propose, if the work be placed in my hands, to execute it by entering into one contract for the whole with some trustworthy and respectable man of the country, taking, of course, ample security for its due and proper performance ; when I should only have to examine the work minutely when finished, and we should have the value of the whole work as security for every part of it.

I think, therefore, that it will be better to allow me to manage the business as I find best.

I propose to begin the work at once, as much may be done even while the present canal is full of water.

If you approve of my views in this matter, I request the favour of your directing the Collector of Shikarpoor to make advances of cash to my order, as may from time to time be required.

I have also the honour to bring to your notice, that the chief and most important canal flowing from the Bigaree—the Noorwah—belonged, at the time when the enlargement of the former canal was proposed by me, wholly to His Highness Meer Ali Morad ; it now belongs wholly to the British.

This canal must of course now be enlarged by us, as it would otherwise have been by His Highness the Meer, or a great portion of the advantage of the enlargement of the Bigaree will be thrown away.

The Noorwah formerly went more than half across the Desert, and was much broader than it is at present, the annual excavation not having been properly performed. It is, as a glance of the map will show, the most important of the secondary canals along the course of the Bigaree. It is now of about the average breadth of 12 feet, and

8 feet in depth, where it leaves the Bigaree. It requires to be enlarged to 25 feet wide where it leaves the Bigaree, and 15 feet at its other extremity, giving an average of 20 feet.

The spoil-banks are now excessively high, and are heaped up on the very edges of the canal: these must be removed, and a good slope given to the banks of the canal, with a berm of 6 feet along their top. The length of the canal to be excavated is fifteen miles, the area of the section of the earth to be excavated averages 160 feet, giving a total of cubic feet 12,672,000, to excavate which will cost, at 500 cubic feet per rupee, Rs. 25,344.

Delay in the execution of this work will cause great loss of revenue, and I have therefore the honour to request that the necessary outlay may be immediately sanctioned.

I have the honour to be, &c.

(Signed) JOHN JACOB, Major,  
Political Superintendent on the Frontier of Upper Sind.

To the COMMISSIONER IN SIND.

*Dated 24th December 1852.*

SIR,—I have the honour to report that I have now returned from a minute inspection of the whole course of the Bigaree Canal, and from visiting the other parts of the Frontier Districts under my charge.

I find that the work of excavating the Bigaree is progressing very favourably, notwithstanding that some delay has been caused by the late prevailing sickness.

I have been taking measures to secure all the outlets from the Bigaree Canal to the southward, where the water at high flood broke out from the canal and injuriously overflowed the country towards Shikarpoor. At all such spots strong permanent bunds are being made, while I have directed all the earth of the new excavation to be thrown up on the southern bank of the canal.

By these means there is every reason to expect that in future the water from the Sind hollow and other extensive swamps between Kusmore and the Bigaree Canal will be caused to flow solely along the channel of the latter, to the great advantage of the irrigation of the districts to the westward, instead of, as heretofore, breaking injuriously across the Bigaree to the southward.

The Indus water will of course be freely admitted into the Sind, the bunds near Kusmore, which were swept away last year, not being reconstructed. As the water in the Sind dries, its bed will be covered with wheat cultivation, while, during the inundation, numerous canals will lead from it in every direction through the country around.

I find that all the canals leading from the Bigaree on both sides, without any exception, have had their mouths constructed with dams projecting far into the channel of the main feeder. In some instances these dams have been made to extend more than half way across the whole bed of the Bigaree. This practice is most injurious under any circumstances, is liable to the greatest abuse, and has been the cause of much unfairness in the supply of water to the Zemindars, without corresponding benefit to any party.

While these dams greatly impeded the onward flow of the water in the main channel, they really added very little, if anything, to the quantity flowing into the smaller canals, which (the main channel being sufficiently full) must be regulated by the quantity drawn off from them for irrigation.

I have therefore prohibited this practice for the future, and ordered that no dams whatever be henceforth allowed to be made at the mouths of the canals leaving the Bigaree, and that no projections of any kind be permitted to be made into the main channel so as to impede the flow of the water through it.

I have requested the Collector of Shikarpoor to have this order enforced also on his side.

The work on the various roads in the course of construction through the district is progressing well, and these roads must prove of the greatest permanent benefit to the country and to the revenue. They are laying open large tracts of dense and almost impenetrable jungle, much of which will, in consequence, be immediately reclaimed and brought under cultivation.

One more little piece of road is required to connect the whole series: it is a road from Moobarukpoor to Hummao. A large bridge over the Bigaree, and ten more bridges over small canals, will be required, making the total cost of this piece of road about three thousand rupees.

The channel of the Bigaree, being enlarged, will be available for the purposes of inland navigation, which will also prove of considerable advantage.

Boats of large size will be able easily to come along it as far as the mouth of the Noorwah, while the Noorwah itself will, when enlarged to the extent sanctioned, be navigable for somewhat smaller boats as far as Surkey-ka-Koo. As the country becomes more populated, this inland navigation will become more and more valuable, and it may ultimately prove of great importance. The bridges across the Bigaree will be constructed with arches of such a size as not to impede the passage of the largest boats.

A great number of applicants for lands at present uncultivated in Boordika have appeared before me, and to these I have granted lands now lying waste and covered with jungle, on terms which appear to be most willingly accepted by the Zemindars, and which, at the same time, will ultimately prove very advantageous to the revenue.

These terms are,—the first year free; the second year one-fourth of the produce to be paid to the State; in all future years one-third. I have endeavoured as often as possible to establish money payment of the revenue instead of Buttai; but this is not liked by the Zemindars, and cannot be carried out generally as yet.

In settling the rate of revenue to be paid in future, I have incorporated all separate petty dues, such as “Ungumwah,” &c. in the share of the produce allotted to Government. Thus finding after due inquiry that these petty dues amounted to about one-twelfth of the produce, and that the cultivated lands in this frontier district heretofore have paid to His Highness Meer Ali Morad one-fourth of their produce, I fixed the collection in future at one-third—no further dues of any kind to be demanded. The Zemindars readily agreed to this arrangement, which is calculated to be convenient to all parties.

The lands of Jummal Khan Doombkee, at Koomree, were, at my request, granted to him by Mr. Inverarity for three years free: this arrangement has, of course, not been disturbed. I have appended to this report a list of the waste lands granted by me to cultivators up to this date.

But the movement among the people has as yet only commenced. There is every reason to believe that, under the present arrangements, the greater part of the whole district will speedily be brought under cultivation, and in the third year yield a full amount of revenue.

It is curious that there has been less fever during the last most sickly season in this swampy tract of Boordika than in the districts to the westward and about Shikarpoor.



It is at present very thinly inhabited, but many of the old Zemindars are returning to the country, and people are commencing to leave the Bhawalpore territory to come and settle here ; while the appearance of content and satisfaction with the change in the state of the district, and of hope for the future, among all classes of the inhabitants, is most striking. All appear eager to possess land, and to commence the work of clearing and cultivating.

Some will be supplied with the means of doing this by the money earned in working at the roads and canals now in progress ; and thus I feel certain a large proportion of the amount expended on these works will be at once indirectly repaid to the State, and this in addition to, and independently of, all direct advantage.

I visited the lands about Koomree, which have been reclaimed and brought under cultivation by the Doombkees and Jekranees, the followers of Durrjah Khan. The change in the neighbourhood of Koomree is quite astonishing. Two years ago the country around was covered with impenetrable jungle, through which there was hardly a path, except the roads of communication cut by me.

These men, formerly the terror of the country, and who, up to April 1847 (when I first set 500 of them to work at the annual excavation of the Noorwah), had never touched a hoe or an axe, nor handled any but weapons of war, have now cleared in the jungle round Koomree a space altogether equal to some four square miles of surface ; this they have ploughed and sowed, and it is now one immense wheat-field, of great beauty and promise.

Not a hand save those of the reformed Beloochee robbers has been put to work, which presents an example alike encouraging to us and to them.

I trust that you will approve of my proceedings in the matters above reported.

I have the honour to be, &c.

(Signed) JOHN JACOB, Major,  
Political Superintendent on the Frontier of Upper Sind.

To the COMMISSIONER IN SIND.

*Dated 2nd November 1853.*

SIR,—I have the honour to report that, during the past season, in this frontier district, the inundation has been of full average height, or something above it.

The river, which for many years past has threatened to destroy the town of Kusmore, lately threw its whole force against its right bank, in the neighbourhood of that place. The town, with the ground on which it stood, has been completely removed, and the site is now part of the main channel of the Indus.

No lives were lost, and a new town has been commenced at a distance of a mile from the present bank of the river, westward.

The flow of water into the Sind hollow has been, this season, somewhat less than it was last year. The minor canals north of the Bigaree have received a fully average and seasonable supply, but a good deal of cotton land was overflowed late in the season, and the plants were thereby so much injured that they will, I fear, yield nothing.

All the canals leading from the Bigaree have received an unusually large supply of water this season, owing to the enlargement of that great feeder, and the removal from its bed of all the "Morees" or dams near the mouths of the minor canals.

The Noorwah, Sonewah, and Meerzawah, received last season the usual annual clearing only, I not having been able to commence the enlargement of the Noorwah before the past inundation commenced, or even to complete the ground-work of the Bigaree canal.

There is still great want of labourers, but both these works will, I trust, be fully completed before the next inundation, while the effects which have already followed the enlargement of the Bigaree are most satisfactory, and encouraging to all parties.

A full report of these works I purpose making separately, and I think that the report had better be postponed till the completion of the excavation, &c.

But I may mention here two instances in which the advantages of enlarging the Bigaree have even exceeded my expectations.

In former years, the water from the great Sind and other hollows north of the Bigaree, at high flood, broke completely across the

channel of the canal, swept away its banks, and injuriously overflowed an extensive tract of low country towards Shikarpoor.

In order to prevent this, I was, in making the new excavation, endeavouring to strengthen the southern bank of the Bigaree in that neighbourhood by every means in my power; but any provision of this kind appears to be now unnecessary; for the enlargement, and, above all, the clearance, by removing the dams of the Bigaree, has caused such an increased capacity for drainage in that channel that the water was found to flow strongly into it both ways, from the south as well as from the north side, and to be rapidly carried off to the westward.

The capacity of the Bigaree Canal has been about doubled by the new excavation, but it has been again at least doubled by the removal of the morees erected by the Zemindars at the mouths of the private canals leading from the main channel.

The prejudice regarding these morees, and the difficulties I met with therefrom in their removal, will be explained in my report on the work of the canal. It will suffice to mention here that these prejudices were not confined to the Natives, and that they were so inveterate, that when they knew that I had positively determined wholly to remove every particle of dam, several of the chief Zemindars on the south side of the Bigaree refused or neglected to make the usual annual clearance of their canals, leaving them totally untouched, and giving out that as the removal of the morees would prevent their getting a drop of water, they would do nothing to the canals, for every rupee expended on them would be wasted.

Such, however, proved to be the increased supply, owing to the free clearing and opening of the main channel, that the water, even in these uncleared canals leading from it, stood two feet higher than usual, and, in many instances, had to be banked out of the fields.

Several of the most violently prejudiced Zemindars, not holding land in the district under my charge, or in any way subject to my authority, have voluntarily come to me to confess their error, and their unreasonable opposition, and to return thanks for the work accomplished.

The complete exposure of the fallacy of their strong prejudices in this instance must, I think, be of great benefit generally among the country folk.

The effect solely due to the greater *height* to which the water rose this year, by reason of flowing freely in the main channel, has been surprisingly great. Thus the land, supplied with water from the Bigaree, cultivated last season in *excess* of that of former years, amounts to more than eight thousand beegas, while the *decrease* in the number of wheels employed amounts to three hundred and thirty. Each wheel kept at work costs about Rs. 130 per season, so that the saving to the cultivators on wheels alone has already amounted to more than Rs. 40,000, leaving the increased cultivation wholly out of consideration.

The completion of the work on the main feeder, from tail to mouth, the enlargement of its chief branch, the Noorwah, and its prolongation far into the Desert, all of which will be, I trust, finished before next April, cannot but be attended with the most happy effects on the revenue and the people of the country.

The return to Government for its outlay is certain, and must be very great; but, from the very nature of such works, time is absolutely necessary fully to develope their beneficial effects.

It is especially so in this country, where, up to the year 1848, the few inhabitants walked in fear and trembling, and were too much occupied with their own personal danger to pay much attention to the tilling of the ground.

The great want in the country now is population. The district is comparatively but very thinly peopled, while the inhabitants suffer much from fever in the eastern part of it; and I take this opportunity of observing that it would be an undoubtedly profitable proceeding, as well as most humane, if Government would sanction an arrangement whereby some trifling medical aid could be afforded to the sufferers.

On the 3rd of July last, one and a quarter inch of rain fell at Jacobabad; the total fall since the 1st January 1853 having been 1.66 inches.

The absence of rain in this district is a decided advantage, as regards the health of the inhabitants, while it is certainly not injurious to the cultivation or revenue.

Certain Zemindars on the border, subjects of the Khan of Khelat, are, with my permission, making canals, from both the Bigaree and Noorwah, the former to supply the lands near Rojan, and the other leading into the heart of the Desert, ten miles north of Jacobabad.

One-half of the revenue of all lands so cultivated beyond our frontier boundary comes to the British Government ; but to what extent these operations may affect the revenue cannot yet be determined.

I have the honour to be, &c.

(Signed) JOHN JACOB, Major,  
Political Superintendent on the Frontier of Upper Sind.

NO. 100 OF 1854.

From Major JACOB,  
Political Superintendent on the Frontier of Upper Sind,  
To the COMMISSIONER IN SIND.

*Dated 1st June 1854.*

SIR,--I have the honour to report that the excavation of the Bigaree and Noorwah Canals has been now completed throughout their entire length

2. The supply of water thereby afforded is much greater even than I had anticipated. The tails of both these large canals are kept freely open, the water flowing over the Desert to the west from the Bigaree, and northward from the Noorwah. Notwithstanding the free exit, the supply has been already found so great that the small canals at Jacobabad overflowed ; and to protect the town and camp, I have had to construct sluices at the mouths of the Boodwah and Rajwah where they leave the Noorwah Canal.

3. This arrangement proves perfectly safe and effective ; but as the river may be expected to rise much higher than at present, it will also be necessary, I think, to construct an " escape " of pukka masonry on the Noorwah near Ahmedpoor, about two miles north of Jacobabad. An application for sanction for this work I purpose forwarding hereafter, should experience during the present season confirm my opinion as to its necessity.

4. A very large tract of hitherto desert and waste land is already being brought under cultivation by reason of the enlargement of these canals, but a full report on the work, with plans, levels, &c. shall be forwarded as soon as I can prepare it, wherefore it seems unnecessary to enter into further particulars at present.

5. The bills for the cost of the work executed I have the honour to forward for your counter signature.

I have the honour to be, &c.

(Signed) JOHN JACOB, Major,  
Political Superintendent on the Frontier of Upper Sind.  
*Jacobabad, 1st June 1854.*

No. 390 of 1854.

REVENUE DEPARTMENT.

From H. B. E. FRERE, Esq.,

Commissioner in Sind,

To the Right Honorable Lord ELPHINSTONE, G.C.H.,  
Governor and President in Council, Bombay.

*Dated 20th November 1854.*

MY LORD,—In submitting the accompanying copy of report from Major Jacob, Political Superintendent on the Frontier, No. 209, of the 13th instant, on the extent of irrigation during the past year, and recommending that the tail of the Bigaree be extended, I have the honour to request the sanction of your Lordship in Council to the expenditure of a further sum of Rs. 30,000 to widen and extend for about ten miles the tail of the Bigaree Canal. On the calculation given by Major Jacob, the correctness of which I see no reason to doubt, the outlay can only be regarded as an advance to be repaid in a very short term of years.

I have the honour to be, &c.

(Signed) H. B. E. FRERE,  
Commissioner in Sind.

*Commissioner's Office, Camp Jerruck, 20th November 1854.*

No. 209 OF 1854.

From Major JACOB,

Political Superintendent on the Frontier of Upper Sind,

To the COMMISSIONER IN SIND.

*Dated 13th November 1854.*

SIR,—I have the honour to report that during the past season, in the Frontier District, the inundation of the Indus has been most favourable. It has been of the full average height, and of remarkable steadiness.

2. The water entered the Bigaree Canal on the 13th April, and from that date to the 25th September, on which date the river left the mouth of the canal, the flow has been continuous, and without any considerable fluctuations as regards the level. The supply of water at the tail of the Noorwah Canal has been very good, and has irrigated a very large tract of the old Desert, both without and within the British boundary. At the tail of the Bigaree Canal the supply of water has been as much as the present canal could bring down, but has been by no means equal to the demand.

At the tail of the Bigaree Canal lies a very extensive tract of land, which is now, and always has been, desert; but which lies low, and which, with a full supply of water, would be capable of rich cultivation, and prove very productive with the smallest possible amount of labour.

This land is already in great demand, and could the supply of water be increased four-fold, the present means in regard to population, &c. suffice to employ every drop of it most profitably to Government.

The present main channel of the Bigaree, before its great branch, the Noorwah, leaves it, is certainly capable of bringing down more water than the tail now carries off, and the more rapid the flow through this main channel, the less is the deposit, and consequent cost of annual clearance. I therefore strongly recommend that the tail of the Bigaree, that is that portion of the canal westward of the point at which the Noorwah leaves it, be enlarged from 16 feet at bottom and 28 feet at top, about its present average dimensions, to 24 feet at bottom and 36 feet at top, and extended in length ten miles further into the heart of the Desert.

This work could be accomplished, I think, for Rs. 30,000, and would ultimately return to Government thirty per cent. of this outlay annually.

There is now no room to doubt of this result, for the revenue report of the district for the last year shows that lands have already been granted in the Desert, consequent on the new supply of water, to the extent of more than 180,000 beegas, which two years hence will yield a permanent revenue of about Rs. 70,000, or about fifty per cent. on the cost of the enlargement of the Bigaree Canal.

I have been endeavouring to get the Zemindars to undertake the work themselves on their own account, and with their own private means. The certain profit was a most tempting inducement, but, however willing, I find that the people have not the means of obtaining the necessary capital, except at ruinous interest; and on the whole view of the subject it appears to me that the work is one which should be executed, and which would be most wisely undertaken, by Government.

The losses and gains by alluvion and diluvion during the last season have been very trifling; about 1,000 beegas were carried away, of which 350 beegas were under cultivation, and about 1,700 beegas have been thrown up, of which 700 are fit for cultivation.

I have the honour to be, &c.

(Signed) JOHN JACOB, Major,

Political Superintendent on the Frontier of Upper Sind.

*Political Superintendent's Office, Jacobabad, 13th November 1854.*

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*Comparative Statement, showing the Increase of Revenue on Lands watered by the Bigaree Canal, in the Frontier and Shikarpoor Districts, consequent on the enlargement of that Canal.*

| Districts.  | For the Year 1852-53. |              | For the Year 1857-58. |            | Total Increase of Revenue. |             | Cost of enlarging Bigaree and Nootwah Canals. |            | Cost of Building Canals. |            | Total of Expenditure. |            |
|---|-----------------------|--------------|-----------------------|------------|----------------------------|-------------|---|------------|--------------------------|------------|-----------------------|------------|
|   | Rs.                   | a. p.        | Rs.                   | a. p.      | Rs.                        | a. p.       | Rs.   | a. p.      | Rs.                      | a. p.      | Rs.                   | a. p.      |
| <b>FRONTIER DISTRICTS.</b>  |                       |              |                       |            |                            |             |   |            |                          |            |                       |            |
| Net revenue from Bigaree and offshoots previous to the enlargement, from lands on the northern side of the main channel .....   | 24,129                | 8 2          | 25,900                | 6 9        | ..                         | ..          | ..  | ..         | ..                       | ..         | ..                    | ..         |
| Estimated amount realisable on old grants .....   | .....                 |              | 81,040                | 0 0        | 82,710                     | 14 7        | 1,53,000                                      | 0 0        | 9,000                    | 0 0        | 1,62,000              | 0 0        |
| Estimated amount realisable on new grants at Rs. 1-4-0 per beega, one-third of the extent of land being under cultivation ..... | .....                 |              | .....                 |            | .....                      |             | .....   |            | .....                    |            | .....                 |            |
| <b>SHIKARPOOR DISTRICTS.</b>  |                       |              |                       |            |                            |             |   |            |                          |            |                       |            |
| Gross revenue from Bigaree and offshoots previous to the enlargement, from lands on the southern side of the main channel ..... | 23,815                | 4 9          | ..                    | ..         | ..                         | ..          | .....   | ..         | ..                       | ..         | ..                    | ..         |
| Estimated amount realisable on old grants, i. e. on land within the enlargement .....   | .....                 |              | 29,000                | 0 0        | .....                      |             | ..  | ..         | ..                       | ..         | ..                    | ..         |
| Estimated amount realisable on new grants at Rs. 1-4-0 per beega, one-third of the extent being under cultivation .....         | .....                 |              | .....                 |            | 5,184                      | 11 3        | .....   |            | ..                       | ..         | .....                 |            |
| <b>Total..... Rupees</b>  | <b>47,944</b>         | <b>12 11</b> | <b>1,35,940</b>       | <b>6 9</b> | <b>87,895</b>              | <b>9 10</b> | <b>1,53,000</b>                               | <b>0 0</b> | <b>9,000</b>             | <b>0 0</b> | <b>1,62,000</b>       | <b>0 0</b> |

*Memo.*—Amount in beegas of new grants since the enlargement of the canal up to the 15th March 1855..... 189,137  
 A third of this number of beegas will be yearly brought under cultivation, and will pay money rate at Rs. 1-4-0 per beega, excepting lands watered from the Bigaree, in the territory of the Khan of Khelat, which will pay annas 10 only to the British Government.

(Signed) JOHN JACOB, Major,  
 Pol. Supt. on the Frontier of Upper Sind.  
*Jacobabad, 29th March 1855.*

(Signed) W. L. MEREWETHER, Lieutenant,  
 Assist. Pol. Supt. on the Frontier of Upper Sind

No. 238 of 1856.

To the SUPERINTENDING ENGINEER IN SIND, Kurrachee.

*Dated 17th July 1856.*

SIR,—I have the honour to forward the undermentioned proposition for irrigational improvement in the Frontier District, by enlarging and thoroughly clearing out the Meerzawah, a large offshoot from the Bigaree.

2. The Meerzawah has hitherto been left to the Zemindars to clear annually ; but it being beyond their power to do so, I have this year applied that it should be cleared at Government cost.

3. From neglect, the canal has become much choked, and the spoil-bank being close to the edge of the canal, continually falls into and fills up the channel.

4. To ensure a full return for the annual Government expenditure, I would propose that the canal be put in thorough good order, the channel cleared, banks sloped, and the spoil-banks thrown back some distance. This will not cost a very large sum, and will be doubly advantageous, first, by adding largely to the revenue, owing to the increased supply of water, and secondly, by decreasing the amount otherwise requisite for the annual clearance.

5. This canal waters the lands belonging to the following villages :—

Meerpoor.

Gonia.

Chandran.

Meerul-ka-Gote.

Chunria.

Laooree.

Chuttah Omer-ka-Gote.

Deeah.

Soliman Bubber-ka-Gote.

Jallalpoor, and Moobarukpoor.

Last year, notwithstanding that no clearance of the canal was made, beyond a little just at the mouth, the Government net revenue amounted to Rs. 9,750, and an additional Rs. 1,950 was added by Jagewardars, making a total of Rs. 11,700: with the supply of water which the proposed improvement would give, this revenue would be more than doubled the first year, the only check to more extensive cultivation hitherto having been the want of water.

6. At present the Meerzawah leaves the Bigaree canal about two and a half miles to the eastward of Soojra-ka-Gote. From this

point to near Meerpoor, a distance of about nine miles (measuring in a direct line), the canal runs almost parallel with, and quite close to the main feeder, the Bigaree, and is carried through a tract of country on which not a blade of cultivation has ever been raised: neither would this part of the canal ever be required, even should any one wish to bring the land under the plough, for water could always be obtained from the Bigaree immediately adjacent.

7. For nearly nine miles this part of the canal is perfectly useless, and any money expended thereon would be simply wasted. The reason for its being taken from the Bigaree so high up is the Native belief that the further the head of a canal is taken up the main feeder, the more water they will get. If this were done to obtain a high level for the head, that they might adjust the fall in their own canal to the best advantage, there would be some reason in it, but they have no means for doing this.

8. About nine miles (measuring along the canal) lower down the Bigaree than where the present Meerzawah leaves it, the first mentioned canal takes a considerable bend to the north, and there approaches to within about 2,500 yards of the Meerzawah. I would therefore propose that a new mouth be made at this point, the dimensions to be as follows:—depth 9 feet, width at bed 14 feet, with a slope of  $1\frac{1}{2}$  to 1 of depth, making the width at surface 44 feet.

The sectional area will be  $(14 \times 9) + (13.5 \times 9) = 247.5$ ;  $247.5 \times 7,500 = 1,876,250$  cubic feet. At the present rate of wages, viz. one rupee for every 700 cubic feet of excavation, the cost would be Rs. 2,680-5-8.

9. From where the new mouth will join the old canal to the extreme tail near Moobarukpoor is a distance of fourteen miles. This portion I would propose to clear, and enlarge, as follows:—width of bed, where new mouth joins, 14 feet, gradually decreasing, as the water is drawn off by various canals, to 8 feet at the extreme tail. First depth of 9 feet gradually decreasing, till at the tail it would be 5 feet; slope, as in the mouth,  $1\frac{1}{2}$  to 1 foot.

|                         |       |
|-------------------------|-------|
| Sectional area at mouth | 247.5 |
| Ditto at tail           | 77.5  |
| Mean sectional area     | 162.5 |

$$162.5 \times 73,920 = 12,012,000 \text{ cubic feet.}$$

Dimensions of the old canal—

|                            |                       |
|----------------------------|-----------------------|
| 12 feet wide at mouth..... | } Bank perpendicular. |
| 4 „ „ at tail .....        |                       |
| 8 „ deep at mouth.....     |                       |
| 4 „ „ at tail .. .....     |                       |

Mean sectional area  $8 \times 6 = 48$  ;  $48 \times 73,920 = 3,518,160$  cubic feet. Deducting this from cubic feet 12,012,000 there remain 8,463,840 cubic feet of excavation to be done ; and at the rate of one rupee for every 700 cubic feet of excavation the cost would be ..... Rs. 12,091 3 2  
 Adding new mouth ..... 2,680 5 8

Will make a total of .... Rs. 14,771 8 10

10. As there will, probably, next season be a great demand for labourers throughout Upper Sind, it will be a matter of great importance that this work, if sanctioned, should be begun as soon as possible, to prevent hurry in its carrying out. The canal will be quite dry by the middle of October, when the work might be commenced.

11. Once cleared, as above proposed, Rs. 2,500 would amply suffice for the annual clearance of this canal.

12. I have the honour to annex a sketch map of the part of the country through which the Meerzawah runs.

I have the honour to be, &c.

(Signed) W. L. MEREWETHER, Captain,  
 Acting Political Superintendent, Frontier of Upper Sind.

*Political Superintendent's Office, Jacobabad, 17th July 1856.*

No. 1649 OF 1856.

Public Works DEPARTMENT.

*By the Superintending Engineer in Sind.*

There can, I conceive, be no doubt of the advantage to Government of undertaking works of this description: in the present instance, for an outlay of Rs. 14,771, a net annual return to Government of

Rs. 7,250, or nearly fifty per cent, is promised. The work is simple, and easy of execution, and there are only two points on which any doubt occurs to me, both of which your intimate knowledge of the Bigaree Canal, and of the system you are now introducing, will enable you at once to settle.

2. The first is, whether the dimensions and state of the Bigaree above Soojah, and between it and the proposed new head for the Meerzawah, will enable the large volume of water the Meerzawah will withdraw to pass through the upper part of the canal, and more especially through those nine miles of the Bigaree in its present state, without affecting the supply in that canal below the head of the Meerzawah. It is, I think, clear that a very large increase of water cannot be withdrawn from the Bigaree for the Meerzawah without reducing the volume in the Bigaree below the junction, and that, if the dimensions of the Bigaree be now properly regulated, the shifting of the mouth of the Meerzawah nine miles lower down it will still further affect that volume, and that it will only be safe to do so if at the same time the area of the Bigaree itself be enlarged sufficiently to convey, in addition to its present volume, the additional volume that will be drawn off by the Meerzawah when enlarged as proposed, otherwise there will be in the Bigaree, beyond the new head of the Meerzawah, a diminution of level. It is, however, possible, that the quantity of water in the Bigaree beyond the junction is in excess of what is required, or that its area of section and slope may be the same from above the present head of the Meerzawah to the site of the proposed head, in which case the supply in the Bigaree below the new head would be affected only to the extent of the greater volume drawn off by the new Meerzawah that is taken by it at present.

3. The other question is, whether it would interfere with the general question of canal clearance to consider a canal of only 14 feet at bottom a main feeder, and to authorise its clearance at the expense of Government.

(Signed) H. B. TURNER, Lieutenant Colonel,  
Superintending Engineer in Sind.

*Kurrachee, 24th July 1856.*

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No. 293 of 1856.

PUBLIC WORKS DEPARTMENT.

FROM the ACTING COMMISSIONER IN SIND.

To the Right Honorable Lord ELPHINSTONE, G.C.H.,  
Governor and President in Council, Bombay.

*Dated 28th July 1856.*

MY LORD, — Captain Merewether, Acting Political Superintendent on the Frontier of Upper Sind, has forwarded through the Superintending Engineer a scheme for clearing and enlarging the Meerzawah Canal, one of the large offshoots from the great Bigaree Canal, in the Frontier Districts.

2. I have the honour to forward herewith in original Captain Merewether's letter, and the remarks of the Superintending Engineer in forwarding it to me.

3. The subject is one on which I possess full personal knowledge; the locality generally, and this particular canal, having been familiarly and minutely known to me for fifteen years past.

4. The Meerzawah was always a Government canal under the Meers. After the deposition of Meer Roostum, it lay wholly in the territory of Meer Ali Morad until the resumption of the district from that Prince in 1852, when it came under the British Government.

5. The Meerzawah was formerly one of the chief branches of the old Bigaree, and supplied a considerable tract of valuable and fertile ground: its clearance must always have been important in an economical point of view, for the return on the outlay must have afforded large profit.

6. But while under the rule of the Meers, a very large portion of the Government revenue payable from the land watered by this canal was alienated and given in life Jageer to various private parties.

7. On the district becoming British territory, and on the enlargement of the Bigaree Canal, I did not recommend that the Meerzawah should be cleared at Government expense, because not only was a large portion of the revenue derivable from it then alienated

from the public treasury, but the canal itself, from long neglect and imperfect annual clearance, was in such a state that the cost of restoring it to a good working condition would have been unusually great.

8. There were also more important irrigational works on hand in the Frontier Districts, and it remained to be shown by experience what quantity of water the great main feeder, the Bigaree, in its enlarged state, could supply.

9. Since the time when the district came under our rule, several of the Inam grants held on this canal have lapsed: a great demand for new land to be watered by it has arisen.

10. The Bigaree is certainly able to supply the water, and the increased drain from this main feeder will prove advantageous to it. Near the mouth of the Bigaree extensive floods often prevail over a tract of country through which this canal passes for several miles of its course: these floods have occasionally broken across the Bigaree, and done much injury to its banks, but it has been found of late years, that whatever tends to increase the rapidity of the current in the canal prevents this injurious effect of the flood, which, when the stream is rapid, flows both ways into the canal instead of breaking across it.

11. Drawing off more water lower down the canal is equivalent to increasing its fall, and thus augments the velocity of the stream above, while the floods near the mouth, during the inundation, are so extensive as to keep the head always near its full height, however rapid the stream.

12. I have now observed this to take place during so many years that it is certain that the more water we can draw down the Bigaree Canal the better, and that the supply for the proposed improved Meerzawah leading from it will be ample.

13. With regard to the new mouth to the Meerzawah proposed by Captain Merewether, I am aware that the proposal also is very judicious, for it will effect a saving of some nine miles in length of the work of excavating the canal, while the difference of level between the new and old mouth is so small that the head of water will not be perceptibly influenced by it.

14. There is no doubt but that the proposed work would return fifty per cent. annually on its cost, as estimated by Captain Merewether.

15. It is also certain that the Meerzawah is properly, and must remain, a Government canal, to be cleared annually, like the other main feeders, at Government expense.

16. It appears to me very advisable that the work should commence in October next. I have therefore the honour respectfully to recommend that immediate sanction be given for the expenditure of a sum not exceeding Rs. 15,000 on clearing and enlarging the Meerzawah Canal, as proposed by Captain Merewether.

I have the honour to be, &c.

(Signed) JOHN JACOB, Lieutenant Colonel,  
Acting Commissioner in Sind.

*Commissioner's Office, Kurrachee, 28th July 1856.*

*Report by the Chief Engineer of Public Works.*

No. 6519 or 1856.

PUBLIC WORKS DEPARTMENT.

*Office of Chief Engineer of Public Works,  
Bombay, 18th August 1856.*

There can be no doubt, as stated by Lieutenant Colonel Jacob, that the increased drain from the main feeder, consequent on the clearance of the Meerzawah, will be equivalent to increasing its fall in the former, or Bigaree Canal; and as it is stated by Lieutenant Colonel Jacob that there is a superabundance of water at the head of the Bigaree, which, at the time of floods, is the cause of serious injury to the banks of the canal, I should think that this evil will be diminished by the clearance of the Meerzawah, and thus drawing off more water from the Bigaree.

2. At the same time, it is more than probable that the present channel of the Bigaree Canal, both above Soojea and from thence to the proposed new mouth for the Meerzawah, will, as suggested by Lieutenant Colonel Turner, be found insufficient to furnish a full supply both to the Meerzawah and to the lower part of its own channel. Indeed, I consider the fact of the Meerzawah having been



originally led off from near Soojea as proof conclusive that the Bigaree Canal between Soojea and the proposed new mouth was not then large enough to supply both. There is, therefore, in my opinion, a strong likelihood that it may be found necessary to enlarge the Bigaree Canal as far down as the new mouth, in addition to the work estimated for by Captain Merewether.'

(Signed) C. WADDINGTON, Major General,  
Chief Engr. of Public Works.

*Resolution of Government on the above, No 2329, dated  
the 2nd September 1856.*

As Lieutenant Colonel Jacob certifies from his own personal knowledge that the Bigaree Canal can supply the Meerzawah as proposed, without detriment to its own supply, Government approve of the provision for the proposed cut being made in the general statement preparatory to the next Budget.

(True copy)

(Signed) W. HART,  
Secretary to Government.

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*Resolution of Government No. 473, dated 17th February 1857, on  
the Letter from the Acting Commissioner in Sind, No. 462,  
dated 6th December 1856.*

The Right Honorable the Governor in Council has perused with much pleasure the accompaniments to the Acting Commissioner's letter No. 462, dated 6th December 1856, which should be published as a Government Selection.

2. Captain Merewether, whose merits Government have often before had reason to notice, seems, in his connection with the Bigaree Canal, to have fully deserved the encomium contained in paragraph 3

of this letter from Lieutenant Colonel Jacob, whose zeal and energy appear to be participated in by all the young officers who have had the good fortune of being subjected to his instruction and influence while Superintendent of the Frontier Districts.

3. The authority requested in Lieutenant Colonel Jacob's 4th paragraph is accorded, and Kardar Khyr Shah should be informed that the Governor in Council hopes that the favourable impression of his character, which he has received from the Acting Commissioner's and Captain Merewether's recommendations, will be increased by similar meritorious conduct on his part for the future.

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**SELECTIONS FROM THE RECORDS OF THE BOMBAY  
GOVERNMENT.**

No. XLIV.—NEW SERIES.

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**REPORT OF THE EXAMINATION**

OF THE

**MINERAL DISTRICTS OF THE  
NERBUDDA VALLEY.**

BY

**J. H. BLACKWELL, ESQ.**

MINERAL VIEWER FOR BOMBAY.



**Bombay:**

PRINTED FOR GOVERNMENT

AT THE

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**1857.**



# IRON AND COAL DISTRICTS OF THE NERBUDDA.

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TO W. HART, ESQUIRE,

Secretary to Government, Bombay.

SIR,—I have the honour to report that I have during the last four months been engaged in an examination of the Iron and Coal Districts of the Nerbudda; the object of my Survey having been to determine whether any of the minerals can be turned to immediate practical account.

The mineral district of the Nerbudda may be said to extend from Baug to Jubbulpoor, a distance of 350 miles, all the iron ore and coal as yet discovered being within these limits.

Through this part of its course the valley varies in width from twenty to fifty miles, and is bounded by ranges of hills,—the Vindhya upon the north, and the Satpoora and Puchimurry Hills upon the south. These hills are invariably covered with jungle, usually thin, but in some places becoming dense, and yielding valuable timber. To the south of the upper part of the valley the jungle extends over a great part of Sindwara and Deoghur, and forms one of the largest tracts of jungle in Central India.

The lower part of the valley is also, in a great measure, covered with jungle, although in places there are large tracts of cultivated land, and much of it is a wild hilly country, incapable of cultivation. The extensive jungles bounding, and in some places covering the valley, are practically important, as, in most places where iron ore is found, no fuel is available for iron-making except the charcoal that they may yield.

The upper part of the valley is uniformly level, and in a high state of cultivation. Large well built villages are found at short intervals throughout its whole extent, and cultivation usually extends from village to village. The soil is of great fertility, two crops per annum being raised without artificial irrigation.

Upper part of Valley cultivated.  
 There is a large population, and no difficulty would be experienced in obtaining any supply of labour that may be required.

Supply of Labour.  
 The lower part of the valley is principally Native territory; the whole of the upper part is directly under British rule, and forms part of the North-Western Provinces.

In point of roads and internal communications, of any sort, the district is but badly off.

The Nerbudda can hardly be said to be navigable in any part of its course. For a short distance above and below Mundlairs a little traffic is carried on by small boats during the rains, but higher up it is not navigable at all, and it could not in any way be made available for the transport of minerals, or as a line of communication.

Nerbudda River not navigable.  
 The only made roads are, one from Bombay to Agra, which crosses the lower part of the valley, and a road from Indore through Burwai to Asseerghur; but even the Agra road is impassable for loaded carts during the rains.

Roads to what extent available.  
 There is a road through the valley, which has been improved to some extent at Government expense, particularly between Nursingpoor and Jubbulpoor, and there are also country roads in every direction, most of which are practicable for light carts during the fine months; but during the rains this communication is stopped.

From Jubbulpoor there is a made road equal to the best English turnpike road to Mirzapoor upon the Ganges, where it joins the great trunk road to Calcutta, and it is by this route that the upper part of the valley is most accessible.

The "Great Indian Peninsula Railway" will run through the whole length of the valley, entering it at Asseerghur, and joining a branch of the "East Indian Railway" at Jubbulpoor.

Railways.

The geological structure of the district is of great interest, and has so close a connection with the subject of my report that some notice of it is necessary.

Geology.

Besides the trap rock and the alluvium and clay of the valley, there are probably not less than five distinct geological formations or series of sedimentary rocks unconformable with each other.

These are,—

1st,—The Vindhyan Sandstones.

2nd,—The great Schist Formation.

3rd,—The Coal-Measures or Burdwan Group.

4th,—The Mahadewa Rocks.

5th,—The Cretacean Rocks of Baug.

It is with the second and third of these that I have to deal, the one containing the iron ore, and the other the coal.

Iron and Coal Formations.

The lower part of the valley, about Mundlaisir, and upon the south side of the river as far as Hurdah, is principally trap, and forms the northern edge of the great trap formation of Western India. Trap is also met with in all parts of the valley; but in the upper part it occurs principally in the form of dykes, often disturbing and altering the neighbouring strata to a considerable extent.

The schist formation covers the greater part of the valley, and consists of a great thickness of limestone and metamorphic sandstones and shales. All the iron ores of value occur in this formation, either as mineral veins or in beds apparently formed immediately from veins.

Schist Formation.

The coal-measures extend along the southern side of the valley, with some interruptions, from Baitool and Sewnic to the neighbourhood of Jubbulpoor.

Coal-Measures.

They consist of a series of slightly micaceous sandstones, shales, and coal-seams, and are quite destitute of iron ore. They form a long narrow strip, resembling an old sea-beach, extending along the base of the Puchmurry Hills. These hills consist of a great thickness of conglomerates and sandstones, which were at one time considered to be part of the coal-measures, but are now supposed to be of the age of the "Mahadewa Rocks." The area of the coal-measures is thus greatly reduced, and their extent rendered uncertain, by being



overlaid by an unconformable series of rocks. This mode of occurrence, and the small number of outcrops of coal of any value as yet found, render it probable that the Nerbudda coal-field is of little value compared to those of Bengal.

• The iron and coal, being in two different formations, will never be found actually together, as in the English coal-fields, where iron ore and coal are interstratified with each other. Iron and Coal not found together. They have, however, in one or two cases been found within a few miles of each other, but are generally a considerable distance apart.

The Nerbudda district, however, possesses an important advantage over the Bengal coal-fields, in the invariable occurrence of limestone (which is as necessary as ore for making iron) with or near its iron ores. Limestone everywhere found near the Ore.

With this preliminary sketch of the general character of the district, I will proceed to describe in detail the various points at which iron ore and coal have been found.

## IRON.

Iron ores of sufficient importance to be worth description have been found in the neighbourhood of the following places:—

|                        |                                 |
|------------------------|---------------------------------|
| Baug. . . . .          | Brown iron ore or limonite.     |
| Burwai . . . . .       | Ditto and compact hematite.     |
| Kaitcote . . . . .     | Ditto.                          |
| Chandghur . . . . .    | Compact hematite.               |
| Towah River. . . . .   | Ditto ditto.                    |
| Muchuck River. . . . . | Brown ore and compact hematite. |
| Tendukera. . . . .     | Calcareous hematite.            |
| Hutnapoor. . . . .     | Silicious hydrate.              |
| Ladgaum . . . . .      | Brown ore or limonite.          |
| Dhurumpoor . . . . .   | Micaceous specular ore.         |
| Agaria . . . . .       | Ditto ditto.                    |
| Purtabghur . . . . .   | Ditto ditto.                    |
| Jowli. . . . .         | Ditto ditto.                    |

Baug is a small town in the Holkar's territory, sixty miles west of

Mundlairsir, and twenty miles north of the Nerbudda river. In its neighbourhood a small area or patch of sedimentary rocks exists, almost if not entirely surrounded by the trap rock which covers the lower part of the Nerbudda valley.

These rocks appear to form two distinct geological formations, unconformable with each other.

The upper series, which covers the greater part of the country, consists of soft thick-bedded yellow sandstone, non-micaceous, and similar in appearance to the Paris sandstone ;

Upper Measures. A reddish sandstone, sometimes conglomeritic ;

Hard dark slaty shales, slightly bituminous ;

A highly fossiliferous limestone, sometimes white, with a smooth fracture, but often coloured red with peroxide of iron.

The sandstone and limestone are well shown in a very distinct section at the Caves of Baug, where from eighty to one hundred feet of sandstone is seen capped by about fifteen feet of limestone. The sandstone is also seen in a quarry about three miles from the caves, where it is worked for building purposes.

The dark shales are met with at several places within a few miles of Baug, and have been considered indicative of coal. No trace of coal, however, has been found either near Baug or in any part of the lower Nerbudda valley.

The fossils of the limestone identify it with the lower cretacean or chalk formation of Europe.

The lower series of rocks, which are only seen at a few points, and more particularly in the immediate neighbourhood of Baug, consists of,—

Lower Measures, containing Iron Ore.

Hard quartzose sandstones ;

Metamorphic schists ;

Hard grey crystalline limestone.

It is in this lower series, which probably belongs to the schist formation, that the iron ore of Baug is found. It occurs not as a stratified bed, but in mineral lodes or veins in the sandstone. In former times, it has been largely worked, but at present the mines are entirely abandoned. Old workings are seen in many places near the

town, generally consisting of a few shallow pits, sunk upon a vein to the depth of three or four feet, but at two places the mines have been much more extensive.

\* The first of these is about a mile and a half from Baug, where a vein has been worked to a depth of fifty-two feet, forming a large open quarry. This working is evidently upon a large vein, and a great deal of ore has been extracted. It has been so long abandoned as to render measurements difficult, but there is a considerable thickness of ore—not less than from twelve to fifteen feet. ●

The second working is similar, but smaller, and about a mile further from the town. The ore is of a precisely similar character, and it may very probably be upon the same vein.

The ore is a hydrated peroxide of iron, and belongs to the class of ores called brown ores or limonites. The greater part is soft and friable, of a yellowish brown colour, in which are interspersed masses and strings of hard dark brown ore. It would yield upon an average\* about thirty-five per cent. of iron. The ore is not practically a good one: the percentage of iron is rather low; and, being silicious, it would require more fuel and limestone in smelting than an argillaceous or calcareous ore of the same richness. The quantity existing is very considerable, and if properly worked it might be raised at a small cost.

The grey crystalline limestone already mentioned is found close to the ore, and the fine-grained sandstone of the upper measures would make an excellent fire-stone for the construction of furnaces.

There being no coal, any iron manufacture would have to depend entirely upon charcoal for fuel. I therefore carefully examined the neighbouring jungle. Character of Jungle. It extends for seven or eight miles in every direction, there being very little cultivated land. It is in many places a mere scrub; the better parts form a thin wood of small trees of from four to eight-inch girth. About three-fourths of the timber is Salee, and other soft woods; the remainder being hard wood, and consisting of Undian, Teak, and Babool.

\* A specimen analysed by Dr. Giraud gave forty per cent.; but this is above the average.

The quantity of fuel that it would yield, compared with the same extent of European or American forest, would be very small; considering, however, the large area from which a supply might be drawn, I should say that fuel for a small work might be obtained, and a little experience would show how far the supply admitted of the production of iron being increased.

Although Baug thus combines the necessary conditions for the manufacture of charcoal iron on a small scale, I should not at all recommend it as a place for commencing the manufacture. It is in Native territory; there are no roads; no demand for iron of any consequence for Native purposes exists; and as the nearest point of the Great Indian Peninsula Railway will be more than one hundred and twenty miles distant, it would not be a fit site for the manufacture of railway iron. At some future time the ore will probably be of value, but at present it could hardly be profitably worked.

Proceeding up the valley, no iron ores are met with until we reach Burwai, a good sized town, twenty-eight miles east of Mundlaisir, and four miles from the Nerbudda.

A made road runs from Indore through Burwai to Asseerghur, crossing the Great Indian Peninsula Railway Company's proposed line at sixty-five miles from Burwai, and thus rendering the mines accessible.

A great deal of iron ore has been found in this neighbourhood. The first point of consequence is the village of Nandia, about a mile and a half from Burwai, where there is an old working upon a large vein of ore, similar in character to that of Baug. It has been worked to a depth of twenty feet, and a thickness of ten or twelve feet of ore is visible.

#### Nandia Ore.

About three-quarters of a mile to the NE. is a second somewhat larger working, where a similar ore is found. Both these mines may be upon the same vein.

Similar ore is seen on the surface at several other points in the neighbourhood of these old workings, and would probably prove as good as where it has been worked.

The ore is principally soft and ochery,\* of a yellowish-brown colour, with masses of hard brown hematite scattered through it, and also forming the cheeks of the vein. It is silicious in character, but if the inferior portions, which are mere ferruginous sandstone, were rejected, would contain about thirty-five per cent. of iron.

Four miles from Burwai, upon the Choora Nudce, near the village of Korundia, is a vein of compact red hematite. The ore has been worked close to the surface, in little pits from four to six feet deep. The workings have extended over a space of about one hundred and fifty yards in length by forty in width, but have been so long abandoned that none of the ore can be seen, the workings being filled with the refuse from the surface. Upon clearing out one of the pits, the ore was met with at a depth of six feet, and consisted of a red hematite, generally very rich, but sometimes silicious, and intersected with small quartz veins. The ore will average about fifty per cent., and is more valuable than the brown iron ore already described.

At Chietee Modree, five miles from Burwai, and at two other places in the neighbourhood, smaller veins of hematite similar to the Korundia ore have been found.

At Kurrunpoora, a village six miles from Burwai, a large vein of brown iron ore has been worked by the Natives.

All these mines are now abandoned. English iron, and the iron of Tendukera, are used throughout the country, and, by their comparatively low prices, have stopped all the Native furnaces, except a few near Chandghur and Makeraban.

Close to the town of Burwai, a very good fire-clay has been worked, and fire-bricks have been made from it by Captain Keatinge at Mundlaisir. It is

\* Specimens sent to Bombay by Captain Keatinge, Political Assistant, Nimar, yielded the following results, according to the analysis of Mr. R. Haines, Officiating Chemical Analyser to Government :—

|                     |       |                    |
|---------------------|-------|--------------------|
| 1st Specimen.....   | 18·15 | per cent. of iron. |
| 2nd     "     ..... | 34·78 | "     "            |
| 3rd     "     ..... | 21·60 | "     "            |
| 4th     "     ..... | 43·43 | "     "            |

a decomposed schist bed, and can be obtained in any quantity wanted. A light grey limestone, rather soft, with a smooth fracture, is found on the Choora Nudce, and near Burwai.

Burwai is one of the best points on the lower Nerbudda for the establishment of a charcoal ironwork. Iron ore, limestone, and fire-clay are found in the neighbourhood. It is upon the edge of the jungle, which from this point extends uninterruptedly up the valley for many miles, and which, though thin, and containing a large proportion of soft wood, is better than that at Baug, and would yield a supply of fuel for a small work.

From Burwai I proceeded to Kaitcote, sixteen miles to the north. Iron ore has been worked here about six miles from the town. There is one small open working, and a number of small pits. The ore is a brown ore, similar to that at Burwai, but more silicious and inferior in quality, averaging about thirty per cent. of iron. Its poor quality and inaccessibility render it at present valueless.

Thirty miles above Burwai, on the north of the river, are the Chandghur ores, which have been described by Messrs. Jacob, Oldham, and Medlicott.

The principal workings are about a mile and a half from Chandghur; the ore worked being a deposit or bed of iron gravel extending over a considerable area, but in most places not more than a few feet thick. No vein is to be seen, but the deposit has probably been formed from the disintegration of the outcrop of a large mineral vein in the immediate neighbourhood, it being composed, not of water-worn or rounded pebbles, but of sharp angular fragments, that have not the appearance of having been brought from a distance. A vein would probably be found in connection with this deposit if it were worked under European superintendence.

Several small similar deposits of iron ore are found in the neighbourhood; and upon the road from the principal mines to Chandghur a large mineral vein is most distinctly seen. It has been worked to a small extent by the Natives, but abandoned, from the excessive hardness of the quartz rock with which the ore is associated.

Near Bamber another deposit of iron gravel is worked, and here  
 Bamber. the vein is distinctly seen, and has been  
 followed to a depth of some twenty feet, and,  
 as at Chandghur, smaller workings exist in the neighbourhood.

All these ores are similar in character ; they are compact red hematite. Some of the ore is very rich, but the greater part is decidedly silicious. A piece of ore can scarcely be found in which strings or particles of quartz cannot be seen. The ore will not average more than from fifty to fifty-five per cent. of iron, and, being so decidedly silicious in character, will be a rather refractory and difficult ore to smelt. The quantity of ore here is very large, and it is much richer and of better quality than any of the ores met with lower down the valley, with the exception of the hematite at Korundia.

No limestone has been found in the immediate vicinity of the ore,  
 Limestone. the nearest at present known being the Poonassa dolomite ; but as this contains, according to the analysis made in Bombay,—

|  |     |           |
|--|-----|-----------|
| Silica Clay and Peroxide of Iron . . . . | 29  | per cent. |
| Carbonate of Lime . . . . .              | 44½ | „         |
| Carbonate of Magnesia . . . . .          | 26½ | „         |
|  |     | <hr/>     |
|  |     | 100,      |

it is a most unfit stone for a flux for a silicious iron ore.

The country is entirely covered with a thin jungle, of a similar  
 Jungle. character to that at Burwai, which would  
 yield a supply of fuel for small works ; but  
 the impracticable nature of the country, the absence of roads, and  
 the difficulty of crossing the Nerbudda, render this district unsuitable  
 for the commencement of the manufacture.

After examining the ores in the neighbourhood of Chandghur,  
 Towah River. I crossed the Nerbudda at its junction with  
 the Towah.

The first ore met with upon the south of the river is at Cartsa  
 Cartsa Byrow Ore. Byrow, where a small deposit of hematite  
 gravel is found, similar to the deposit on the  
 Chandghur side. It is worked to a small extent, the ore being taken  
 to Makeraban to be smelted.

Upon the bank of the Towah river, opposite to Makeraban, is a

small vein of hematite, that has been worked to a depth of three or four feet, but the rock in which it occurs being hard, and the ore difficult of extraction, it has been almost abandoned.

The furnaces of Makeraban and the neighbouring smelting villages are chiefly supplied from an extensive working at Basina. This is about three miles from the Towah, upon the road to Phoon Ghaut, and is the most valuable mine on this side of the river. A gravel deposit and ore *in situ* are worked, the vein having been followed to a depth of nearly twenty feet. The ore is good, but not so rich as that found at Chandghur, the average not exceeding forty-five per cent. of iron.

Upon the Muchuck river, which flows into the Nerbudda at Phoon Ghaut, a brown iron ore, similar to the Muchuck River. Burwai ore, is found at several places, but most abundantly at the village of Lemekaira : it occurs in large quantities, and is of about the same quality as the Baug or Burwai ore.

Five miles from Phoon Ghaut, upon the road to Hindia, near the village of Kirmin, is a vein of soft red hematite, of very good quality, and of considerable size. It has been worked to a depth of about twenty-five feet, and has been followed for some distance under ground, but is now almost abandoned, water having been allowed to accumulate in it during the rains.

These ores are well situated, being within fifteen or eighteen miles of the Great Indian Peninsula Railway, but are not practically of any present value, there not being even the small supply of fuel which can be obtained at points lower down the river, the jungle here being replaced by cultivated land.

A little iron is made by the Natives at many of the villages in the neighbourhood of Chandghur and Makeraban. Very few of the furnaces are kept regularly at work, and the entire quantity produced is most trifling, and bears no comparison to the manufacture of the upper part of the valley.

After leaving Kirmin, near the Muchuck river, no iron ore is met with until we reach Tendukera, one hundred and fifty miles further up the valley.



At the small village of Oomerpani, two miles to the south of Tendukera, and four miles from the north bank of the Nerbudda river, a large iron mine is worked by the Natives. It is in the open flat of the plain, from four to five miles from the Saugor Hills, which bound the valley on the north, and is a very large mineral vein or lode in the limestone of the schist formation. The limestone is seen largely developed in a long low hill a few hundred yards to the south, this hill being the only interruption of the flat of the valley, from the Saugor Hills to the Nerbudda.

Tendukera Ore occurs in Limestone.

The ore has been smelted for ages, and the workings are the most extensive that I have seen in India, extending over a space of four or five hundred yards in length by some two hundred in width. The ore is obtained from a depth of from thirty to forty feet from the surface, to which depth shafts are sunk through the alluvial soil and clay of the valley. The ore, however, occurs in larger or smaller quantities, quite to the surface. The pits are sunk every season, being all washed in during the rains, and the whole system of working is as rude and wasteful as it can possibly be. At a depth of about forty feet the miners meet with a little water, which prevents their going deeper, but they all assured me that the ore invariably continued under foot of at least as good quality as that worked, and these statements were confirmed by my own observations in the workings open at the time of my visit. This is an important point as regards the quantity of the ore, as a small pumping-engine would probably render accessible a great deal of ore that the Natives at present cannot reach.

The ore evidently extends in the direction of the vein at each end of the present workings, but for what distance it is impossible to say, as the alluvium of the valley covers it completely. After having descended all the pits at work, I can say, that although the extent of the vein is uncertain, there is undoubtedly a very large quantity of ore here,—quite sufficient to supply a work of considerable size. The ore is of excellent

Quantity of Ore.

Quality of Ore.

quality; it will contain, upon an average, about forty per cent. of iron, and is a calcareous ore, somewhat similar to the forest of Dean ores worked in the

mountain limestone of Gloucestershire. From its calcareous character it would require little or no limestone in the blast-furnace, and thus, containing its own flux, would be a particularly easy ore to smelt, requiring less fuel than the silicious ores found lower down the valley.

Its value is greatly enhanced by its proximity to coal; the only good seams of which as yet discovered upon the Nerbudda being found at Mopani, thirty miles distant, upon the opposite side of the valley.

The town of Tendukera, near the mines, is entirely engaged in iron-making, the ore being derived from the Native Iron Manufacture at Tendukera. mine already described.

The charcoal used is obtained from the hills to the north, from four to ten miles from the town. The jungle on these hills is of about the same thickness as in other parts of the valley. Every sort of wood, hard and soft, is used indiscriminately, and the jungle is cut every four years.

The charcoal is brought to the town in baskets, upon the backs of buffaloes, and sold at from three and a half to three buffalo-loads for the rupee, or about 8s. per ton. It is of very fair quality, weighing from 11 lbs. to 12 lbs. to the bushel of 2,625 cubic inches.

Seventy or eighty furnaces are engaged during the fine months in smelting, and iron of excellent quality is produced.

It is here, as everywhere in India, divided into two sorts, cutcha and pucka. These terms, however, have a different signification in each district: here the cutcha iron consists of small blooms of marketable iron, made direct from a furnace, which is a nearer approach to a catalan forge than any other furnace I have seen in India. This cutcha iron is used for ordinary purposes, and is as good as the pucka iron of Chandghur. The pucka iron is made in a furnace of a different description, from which it comes as a species of crude steel; it is cut to pieces, re-heated and hammered, by which process it loses its steely character, and makes iron of superior quality, which is used for purposes for which great toughness and strength are required. The crude steel is used for making edge-tools, and for the points of picks, crowbars, &c., and is of very good quality.

The prices of iron at Tendukera are as under:—

Cutcha iron, Rs. 3½ to Rs. 4 per gond of 3 local maunds.

Or £3 3s. to £3 12s. per ton.

Pucka iron, Rs. 5 to Rs. 6 per gond of 3 maunds.

Or £4 10s. to £5 8s. per ton.

It may therefore be said that iron is made here, by the rudest methods,—without any machinery beyond the bellows and hammer of the workmen,—cheaper than it can be made in England, with every mechanical appliance for facilitating the manufacture.

The manufacture here forms a striking contrast to that at Chandghur. At the smelting villages in that district the cutcha quality is a rough mass of iron and slag, that cannot be used until it has gone through a second process of heating and hammering, and been made into pucka. In this state it is sold at Rs. 14-4-0 per pulla of 3 maunds, or £12 10s. per ton; and at this price the smelters are worse paid for their labour than those of Tendukera.

This great difference in cost of production is mainly due to the quality of the ore; the quantity of materials used for making a ton of iron in the two districts is as under:—

| Description.               | Iron Ore.    | Charcoal.    |
|----------------------------|--------------|--------------|
|                            | T. cwt. qrs. | T. cwt. qrs. |
| Chandghur pucka iron.....  | 7 10 0       | 8 5 0        |
| Tendukera cutcha iron..... | 3 9 0        | 3 15 0       |
| Tendukera pucka iron.....  | 5 3 2        | 5 12 2       |

In the Chandghur furnaces, part of the fuel used is wood. This I have reduced to charcoal at the rate of five tons wood to one of charcoal, for the purpose of comparison.

The cheapness of production is also partly caused by the superiority of the furnaces, and the systematic manner in which the manufacture is carried on. There are distinct classes of miners, charcoal-burners, and smelters. All the iron is purchased from the makers by Banians or merchants, some of whom are men of considerable wealth. The country is supplied with iron, and with articles of all sorts made of iron, for a considerable distance, the iron being sent in some cases as much as two hundred and fifty miles. Although the quantity of iron made at Tendukera is probably much larger than that made at any other town in India, it is ludicrously small compared with the quantities turned out by European works, and amounts to from twenty to twenty-five tons per week during eight or nine months of the year, all the furnaces being stopped during the rains, from the difficulty of obtaining charcoal and ore.

It was at Tendukera that Captain Franklin some thirty years ago manufactured by the Native method sufficient iron for the construction of a suspension bridge.

Upon the opposite side of the valley iron ore is worked at the village of Hutnapoor, twenty miles SW. of Nursingpoor. The ore is found near the top of one of the hills in the range bounding the valley on the south, and consists of a thin layer of nodules of a lean and silicious hydrate. It is found in very small quantity, and is of no practical value, but is interesting, as occurring in the rocks overlaying the coal-measures, which, besides one or two seams of this formation, contain no metallic ores.

Hutnapoor Ore of no practical value.

A deposit of compact brown ore or limonite, in the form of pebbles or gravel, has formerly been worked at the village of Ladgaum, but is now abandoned, the ore existing only in small quantities.

Ladgaum.

At Dhurrumpoor, on the south side of the river, two miles from Lemata Ghaut, and ten miles from Jubbulpoor, a mine of more consequence is worked.

Dhurrumpoor ; Micaceous Specular Ore.

There is here a micaceous specular ore, found in thin layers from one-eighth to half an inch thick, alternated with layers of hard shale and quartzose sandstone. It is worked in small pits, sunk to the depth of ten or twelve feet, the lower seven or eight feet containing the ore, which forms perhaps one-tenth of the section, the remainder being sandstone and shale. There are but few furnaces supplied from this place, and the workings are small. The ore continues in depth, but, as the Natives can get a supply from near the surface, they do not follow it. Besides the principal working, there are several smaller ones in the neighbourhood, which show that the ferruginous strata extend for some distance. The ore itself is very rich, but, occurring in such thin layers, would always

Quality of Ore.

contain a considerable admixture of impurities. As worked by the Natives, it yields about fifty per cent. of iron, and, although rather thin in the ground, is got very cheaply.

The openings upon the ore are not of sufficient extent to enable one to speak with confidence of its value ; but there is probably a considerable quantity of good ore here.

Limestone.

The nearest limestone is the marble of Beira Ghaut, about five miles from the ore.

Twenty miles to the NE. of Jubbulpoor, at the village of Agaria, is a very large deposit of micaceous iron ore.

Agaria.

It is not a mineral vein, but is interstratified with shale, and thin beds of quartzose sandstone. At the point where it is worked, there is a great thickness of ore, almost free from any admixture of foreign matter. At a little distance from the workings, three shafts have been sunk by Messrs. Hunt and Elmsley, Railway Contractors, to a depth of twenty-eight feet, with a view of proving the ore.

They all pass through ferruginous strata, not as rich as where worked, but containing quite enough ore to

Quantity of Ore.

be workable. The Native workings consist of an open shallow quarry, in which the ore has been dug out to the depth of ten or twelve feet.

The ore is of a slaty structure, and so soft that it may be dug out with a spade. It is of a steel-grey colour,

Quality of Ore.

and very rich. As raised by the Natives, it probably averages sixty per cent. of iron.

At Jowli, twelve miles further, a somewhat similar ore exists

Jowli.

as a mineral vein. It is of about the same richness as that at Agaria, but is coloured red, by an admixture of peroxide of iron. At Jowli an excavation has been made, by the mere removal of ore, about two hundred and fifty yards long by fifty yards wide and twenty yards deep, the bottom and ends of the working presenting a solid mass of ore.

At Purtabghur, a village between Agaria and Jowli, a similar ore is seen, but has only been worked to a small extent.

Purtabhur.

These mines at Agaria and Jowli are by far the richest in the Nerbudda valley. The quantity of ore is

Agaria and Jowli the richest Mines in the Valley.

practically inexhaustible; it can be got at the lowest possible cost, and will average sixty per cent. of metallic iron. No limestone is known to exist in the immediate neighbourhood of the ore, but further explorations would probably discover some.

If none should be found, however, it may be brought at no great expense from the neighbourhood of Jubbulpoor.

Limestone.

The ore could only be smelted by charcoal, there being no coal ; but as these mines are situated upon the edge of a jungle that extends over thousands of

Fuel.

square miles, with proper arrangements a large supply of fuel might be obtained. The extension of the East Indian Railway to Jubbulpoor will pass within a few miles of the mines, and there is at present within ten miles an excellent road running from Jubbulpoor to the Ganges, where it meets the great trunk road to Calcutta. There would therefore be less difficulty in transporting machinery to these mines than to any others in the valley.

Mines more accessible than any others upon the Nerbudda.

## COAL.

Although the coal-measures extend for one hundred and fifty miles along the south side of the valley, coal-seams have only been found at the following places :—

Sonadeh.

Sher River.

Sucker River.

Lemata Ghaut.

Mopani.

Of these points I did not visit the first two, as they were not likely to be of importance, and my time was limited. They are thus described by Mr. Medlicott in his report upon the coal-measures of the Nerbudda :—

“ The Bhora Nudee at Sonadeh shows the outcrop of two little

Sonadeh Coal-seams too thin to be of value.

“ beds of coal. These Mr. Johnson states

“ to be six inches and seven inches thick

“ respectively, but he excavated all that

“ could be easily taken away from the outcrop, and the stream

“ has since then filled up the hollows made. He found eighteen

“ inches of coal in a pit which he sank on the east bank of the

“ stream, which gave coal of good quality. It may, I think, be rea-

“ sonably doubted if boring throughout the valley will bring to light

“ any more promising locality than that opened by Mr. Johnson at

“ Sonadeh. From what I have above stated of the area occupied by

“ the coal-bearing rocks in this neighbourhood, it will be seen that  
 “ did such better bed of coal exist, it might naturally be expected to  
 “ appear at the surface.”

“ A little band of coal, from ten to fourteen inches thick, but very  
 “ unpromising in aspect. Captain Ousely  
 \* Sucker River. “ mentions this place, stating the coal to be  
 “ three feet thick ; I believe nevertheless that I have not understated  
 “ the value of what is seen, and that it is worthless commercially, and  
 “ offers no reasonable prospect whatever of repaying the labour of  
 “ digging down on the chance of improvement.”

The coal here is seen cropping out in the bed and banks of the  
 Mopani. Setarewah Nudce, near the village of Mo-  
 pani on the one side of the stream, and  
 Benar upon the other. The coal is quite in the plain of the Nerbud-  
 da, and about a mile from the point where the river leaves the hills.

Mopani Coal well situ- Its position is therefore very good, and per-  
 ated. fectly accessible. There exists at present a  
 cart-road, practicable during the dry weather,  
 and an excellent road or tramway might be made at a small expense.  
 The Great Indian Peninsula Company's line will also run within ten  
 miles of it. A very distinct section of the coal-measures is seen in  
 the bed of the stream, consisting of about three hundred feet of shales  
 and slightly micaceous sandstones. The section is terminated some  
 two hundred yards down the stream, or below the coal, by a large  
 trap dyke, and one hundred yards above it by the coal-measures  
 being unconformably overlaid by a great thickness of conglomerates.  
 The coal-measures dip to the NE. at varying angles. In the imme-  
 diate vicinity of the trap dyke they are almost

Dip of Coal. vertical, but become less and less inclined in  
 receding from it; the coal-seams themselves being inclined at an  
 angle of 20° to 25°, and the rocks overlying them at 15°. The coal,  
 strictly speaking, consists of three beds, but the two lower beds being  
 merely divided by a thickness of 1 foot 4 inches of shale, have been  
 sometimes counted as one. The upper bed is 9 feet 6 inches thick,  
 and of very good quality. In the lower part of it there are one or

Three Seams of Coal, 9 two thin layers of inferior coal, but with this  
 feet 6 in., 3 feet 6 in., and exception it is uniformly good. The second  
 6 feet, thick, bed is 3 feet 6 inches thick, and of the same

quality as the first. The third bed is 6 feet thick, and of inferior quality; about 2 feet 9 inches in the centre being good coal, but the top and bottom very poor.

The coal, although not equal to the best English, makes a fair coke, and would be applicable for railway or steam purposes, or for the manufacture of iron. It would answer perfectly well for puddling and rolling (that is to say for converting cast-iron into wrought), but would not do for smelting the ore, except with hot-blast. The seams being of such good quality and thickness, are, if they exist over a considerable area, of great value, and might be turned to immediate and most important practical account.

Their extent is, however, in some measure uncertain, as no trace of them can be seen in any of the adjacent hills.

Extent of Coal uncertain.

This, however, may be due to the nature of the ground; the flanks and base of the hills being so thickly covered with coarse gravel—the *débris* of the conglomerate beds of which the hills are composed—that no outcrops existing could be seen except at a point where a stream has swept away the gravel, and exposed the rocks below.

The actual distance that the coal can be seen is not more than one hundred yards, it disappearing upon the west side of the stream, under the gravel and alluvium of the plain, and under a hill which forms a spur of the main range, on the east. I have, however, traced the top bed of coal into this hill for about a hundred yards further, by means of a series of small pits. It continues perfectly regular for this distance, and is then overlaid by a thick bed of sandstone, which rendered the sinking of further shafts in the limited time at my disposal impossible.

Below the level of the stream the beds are filled with water, and

Part of Coal under Water. no shaft could be sunk without some arrangement for draining the coal. During the dry weather, this could probably be done with bullocks, as the quantity of water is small; but during the rains a small steam-engine would be required, to keep the mines open.

This, however, is of less consequence, from the fact that, if the seams continue with any regularity, there is plenty of coal to supply any demand for some years to come, above the level of the water, and which would require neither shafts nor machinery of any sort for



working. This part of the coal being so favourably situated, I commenced driving a heading in the lowest bed, which would to a certain extent prove the coal, and test the capabilities of the Natives as miners. During the short time that I was able to superintend it, this level was driven forty-five feet, for which distance the coal continued perfectly regular; and although the men employed were very badly supplied with tools, the heading was driven at a less price per yard than it would have cost in England; indeed, the value of the coal got would have very nearly covered the cost. Upon my leaving the mines, the heading was continued, under Native superintendence, by Captain Ternan, Deputy Commissioner for Nursingpoor, and has probably been driven a good deal further.

The dip of the coal-beds is high: at the outcrop of the lower bed it is  $25^{\circ}$ , or 1 foot 2 inches in the yard. As, however, the overlying rocks dip at  $15^{\circ}$ , or 9 inches in the yard, we may safely take the dip of the coal, when followed to some little depth, at 1 foot in the yard; and as the dip of all the beds decreases in going from the trap dyke, which evidently affects them, it probably would be less. If a shaft were sunk to the dip of the present outcrops of coal to a depth of one hundred yards, it would command a strip of coal three hundred yards wide; and supposing the coal to continue only for eight hundred yards on each side of the shaft, we

Estimated Quantity of Coal. should have an area of coal of  $1,600 \times 300$ , or 480,000 square yards. The aggregate thickness of the coal-seams is 19 feet, or, deducting the inferior portion of the lower seam, 16 feet. This would yield  $3\frac{1}{2}$  tons per yard; or, taking it at an average of 3 tons, 480,000 yards would yield 1,440,000 tons. In addition to this, there would be a tract of coal in the hill already mentioned at least 100 yards in width by 800 yards in length, or 80,000 square yards, at 3 tons per yard = 240,000 tons. If, therefore, the coal-measures continue for 800 yards on each side of the present outcrop, and for 300 yards towards the dip, there will be about  $1\frac{3}{4}$  million of tons of coal available.

Now, as the coal is only actually traced for about 200 yards on its outcrop, it is possible that it may thin out, or it may be thrown out by a fault; or, as the coal-measures are overlaid by an unconformable series of rocks, it may at this point have been denuded before the

overlying formation was deposited. None of these causes of disturbance are, however, likely to affect it within the limited area I have taken. The excellent quality and thickness of the seams render it very improbable that it will thin out within a few hundred yards. A fault is not likely, as the sandstone beds belonging to the coal-measures can be seen through the gravel of the hills at several points within half a mile of the coal, and their position does not seem materially disturbed, as it would be by a large fault. The thickness of beds belonging to the coal-measures seen overlying the seams, and between them and the conglomerate of the upper formation, renders it improbable that the coal has been denuded within the narrow limits to which I have referred. I consider it, therefore, as certain as anything can be without absolute proof, that there is a very large quantity of good coal to be got here; and its importance is increased by the fact that at no other point of the Nerbudda have seams of coal of any considerable thickness been found.

The next point is the Sher river, thirty miles further up the valley, and twelve miles from Nursingpoor. There are two seams of coal here,—one is seen in the bank of the river, just below the village of Schora. The coal here gives the following section :—

Overlying Sandstone.

|                       |            |
|-----------------------|------------|
| Soft Shale.....       | 1½ inches. |
| Coal .....            | 2 „        |
| Soft Shale.....       | 3 „        |
| Good bright Coal..... | 10½ „      |
| Soft Shale.....       | 1¾ „       |
| Coal .....            | 5 „        |
| Shale.....            | 4 „        |

—————  
Total....27¾ inches.

As there are only 17½ inches of coal, it is of course of no practical value. About four miles further up the river, a little above the village of Mut Peperiah, there is another coal-seam exposed. It can be seen in the bank for about a hundred yards, and in that space appears to vary from eighteen inches to two feet in thickness. It is of very inferior quality, and does not at all present the appearance of a seam of value.

At Lemata Ghaut, a seam of coal is exposed on the banks of the Nerbudda. It is seen on each side of the river, and is of greater thickness than the Sher river seams, but of such inferior quality

Lemata Ghaut; Coal very inferior in quality.

as to be scarcely deserving of the name of coal; being more like a highly bituminous shale. I presume it must be this seam that Mr. Jacobs refers to in saying the Nerbudda cuts a large coal-seam at Belthari Ghaut. There is certainly no trace of coal or coal-measures at Belthari Ghaut, which is eighty miles lower down the river. If this is the seam, I can quite agree with him in thinking it of little or no practical value.

The coal as yet discovered in the Nerbudda valley being so small in quantity compared to the iron ore, it becomes a matter of importance to ascertain how far the jungle may supply the deficiency of mineral fuel.

Mr. Oldham has very fully discussed the general question of forest fuel in his excellent paper upon the iron and coal of Cuttack, and gives the following estimate of the yield of European forests when carefully preserved for the production of fuel, and regularly cut:—

A European forest yields from  $6\frac{1}{2}$  to 12 tons of kiln-dried wood

Yield of Fuel from a European Forest. per acre, averaging 8 tons, and being cut once in eight years will yield a continuous

supply of 1 ton per acre per annum. As well

dried hard wood yields 25 per cent. of charcoal, this is equivalent to 5 cwt. of charcoal per acre, or 160 tons per square mile per annum.

This estimate is no doubt correct, and will seem very moderate when compared with the following statement of the quantity of fuel obtained from an American forest:—

An average American forest yields, according to Overman,

30 cords of wood per acre, or, at 40 bushels of charcoal per cord of wood, 1,200 bushels of charcoal per acre.

Yield of Fuel of an American Forest.

The charcoal will weigh upon an average 13 lbs. per bushel, which will give  $6\frac{1}{2}$  tons

per acre, or 4,160 tons per square mile. Taking one-eighth of this for the purpose of comparison with the annual yield of a European forest, we have 520 tons against 160 tons. The fact is that a European forest, cut regularly for the supply of fuel, resembles an Indian jungle much more than an American forest.

I think we may therefore very fairly assume, as Mr. Oldham does, that an Indian jungle properly preserved and cut would yield as large a supply of fuel as the same extent of European forest.

The area from which an ironwork may draw its supply of fuel is much greater than is usually supposed.

The cost of charcoal-making in the Nerbudda jungles at present ranges from 3s. 6d. to 6s. per ton, this being the price that the smelters pay for the charcoal when taken at the place where it is made.

In estimating the cost of fuel,\* I will take it at 5s. per ton; and as an ironwork can well afford to pay 20s. per ton for charcoal, this will leave 15s. per ton for carriage. As it can be transported upon the backs of buffaloes for 6d. per ton per mile, this will admit of its being brought from an average distance of thirty miles, or from an extreme distance of forty miles in every direction.

Long before an ironwork was obliged to draw its fuel from such a distance, some length of light tramway would be laid down, upon which the cost of carriage would not be more than 1d. per ton per mile. We may therefore very fairly consider that an ironwork, if planted in an extensive jungle, could draw its fuel from a distance of forty miles in every direction, or from an area of five thousand square miles.

As, however, in practice a work cannot usually be placed in the centre of the district from which it derives its fuel, I will take rather less than one-fourth of this, or twelve hundred square miles, which is an extent of jungle that might easily be attached to any work placed at the foot of the Puchmurry Hills, in the upper part of the Nerbudda valley, and would amount to a tract of jungle say thirty miles wide by forty long.

Now if this twelve hundred square miles of jungle yielded one-fourth of the estimated produce of a European forest, or 40 tons of

\* For comparison with this estimate of the cost of charcoal, I annex the present prices of charcoal at different points in India:—

East Indian Iron Company's

Works, Madras ..... 18s. 6d. per ton, delivered at Works.

Kumaon Ironworks, Hima-

layas ..... 10s. per ton, delivered at Works. The last contracts being at the rate of 3 annas per maund.

Poonassa Jail, Nerbudda .. 9s. per ton, delivered at Jail.

charcoal per square mile, instead of 160, we should have a continuous supply of 48,000 tons per annum, which at 3 tons of charcoal per ton of wrought-iron would be sufficient for a yearly make of 16,000 tons of iron, or 300 tons per week.

From what I have seen of the jungles, I feel satisfied that this is not an over-estimate, and I therefore consider that a sufficient supply of fuel for works of considerable magnitude might be obtained in the upper part of the Nerbudda valley, independently of the coal.

These calculations will not apply to the lower part of the valley, as the area of jungle there is limited, and of inferior quality; but at several points that I have mentioned in describing the iron ore, a considerable quantity of fuel may be obtained.

Although the quantity of iron ore in the Nerbudda valley is very large, and is found at so many points, there are but two places where I should consider the erection of large works likely to be successful. These are Mopani and Agaria, both in the upper part of the valley. It is very doubtful whether the mines lower down could be worked upon a sufficiently large scale to be of any material service in the construction of the railway. This, however, must remain a matter of opinion until some reliable data are obtained from which to determine the value of the jungles as a source of fuel, and the applicability of Native labour to the manufacture. A very small expenditure of time and money may, however, furnish this information. Captain Keatinge has obtained the sanction of Government to the erection of a small rolling-mill, for the purpose of rolling the Native iron (which is made in rough lumps) into bars. The necessary machinery, consisting of a steam-engine, rolls, &c. is now upon its way from England, and will probably be in Bombay in a few weeks. Mundlaisir was fixed upon, in the first instance, as the place for the erection of this machinery, from its being the head quarters of Captain Keatinge, and therefore the only place at which it was possible for him to superintend its erection and working.

Mundlaisir, however, is not a good site for an ironwork, being at a distance from iron ore or the jungles.

I should therefore strongly recommend the erection of the machinery at Burwai, where iron ore, limestone, and fire-clay are found, and where an abundant supply of fuel may be obtained.

If a small pair of blast-cylinders—which, to save the delay of ordering from England, might be made in the Bombay Dockyard—were added to the machinery ordered, a very complete little experimental work might be erected at a small expense.

It would consist of a charcoal blast-furnace, and a small work for making and rolling wrought-iron, and might be put to work by the middle of the next cold season.

The expense of erection of the machinery already sanctioned would not be greater at Burwai than at Mundlaisir, and the additional erections and machinery that I propose would cost from £800 to £1,000.

Such a work would make about 20 tons of iron per week, for which there would be a ready sale upon the spot, independently of the railway; and a few months' working would clearly show the value of the minerals and jungle.

I think that even so small a work would pay all expenses,\* and soon return even the amount of the first outlay. If the erection of such a work be approved, it will be advisable to put the machinery required from the Dockyard in hand as soon as possible, to ensure its completion in time to be sent up the country immediately after the rains.

I would of course undertake to superintend its erection, and put it fairly to work, after which it may be placed under a manager, subject to Captain Keatinge's control, unless otherwise disposed of; but I have no doubt that the experiment would be sufficiently successful to induce the working of the mines by private enterprise.

At Mopani we have an unlimited supply of coal; and the dense  
 Mopani.                      jungle that covers the hills, and, in fact, the  
    whole country for many miles to the south,  
 would furnish an almost equally large supply of charcoal if required. If it were connected by a tramroad with the iron mines of Tendukera, we should have every requisite for the manufacture of iron upon a large scale,—coal, charcoal, iron ore, and fire-stone. The works would also be in a most favourable position, within ten miles of the proposed railway, in a part of the valley where any supply of Native labour may be obtained, and in a comparatively healthy situation.

Of the thirty miles of tramway that would be necessary, the first ten miles will be made, as a matter of course, whenever the railway is completed, for the purpose of supplying it with coal, quite

independently of any ironworks; the remaining twenty miles may be constructed very cheaply.

At Tendukera itself a large work could not be erected for the want of fuel, the jungles upon the north side of the valley being very small in extent compared with those to the south. A supply of fuel for a pair of blast-furnaces to make say 60 tons per week might be obtained, however, without difficulty; and if the erection of large works at Mopani were contemplated, the first step would be the erection of such a work for the purpose of making the iron required for the tramway, and for the heavier machinery of the large work.

If this plan were followed, I should estimate the cost of works to make say 250 tons of wrought-iron per week as follows:—

|   |                          |
|---|--------------------------|
| <i>Charcoal Work at Tendukera</i> , for the production of   |                          |
| 60 tons of pig-iron per week, inclusive of foundry, small rolling-mill, fitting shop, &c. ....  | £ 6,000                  |
| <i>Large Work at Mopani</i> , to consist of six charcoal blast-furnaces, capable of making 40 tons per week each, or 240 tons per week in all, and mill and forge for the conversion of 300 tons of pig into wrought-iron. .... |                          |
|   | 34,000                   |
| <i>Tramway</i> , ten miles, at £2,000 per mile .....  | 20,000                   |
| <i>Tramway</i> , twenty miles, at £1,000 per mile .....   | 20,000                   |
|   | <u>Total....£ 80,000</u> |

£40,000 will seem a small sum for the erection of works capable of making 300 tons of pig-iron per week, and converting the greater part of it into bars: I am satisfied, however, that with judicious management it may be done at this cost, as many sources of expenditure in an English work would not here exist. There would be scarcely any expenditure upon the colliery, which generally forms the heaviest item in establishing an English work. Instead of deep shafts, and perhaps half a dozen steam-engines for pumping and winding, we should have here for several years an abundant supply of coal, to be reached by level headings, made at trifling expense.

The iron ore of Tendukera would be worked with equal ease and cheapness.

The use of charcoal in the blast-furnace will also diminish the amount of the first outlay, and, while it greatly improves the quality of the iron, will not enhance its cost.

The expenditure would be confined to the erection of the works, consisting of the machinery, furnaces, and buildings necessary for the manufacture. By commencing upon a small scale at Tendukera, nearly all the machinery, except the engines and boilers, would be made upon the spot. This, however, is not a matter of choice—it would be at present impossible to bring the heavy machinery required for rolling rails from England, as it could not be conveyed from the port six hundred miles into the interior.

It would, however, be quite possible to make it after the first works were fairly established, as, although heavy, it is of a very simple description.

The steam-engines and boilers, and such parts of the machinery as were required from England, could be brought by way of Calcutta without difficulty, being sent up the Ganges to Mirzapoor, and from thence, by the excellent road that exists, to Jubbulpoor. From Jubbulpoor there are cart-roads practicable during the fine months to the mines.

The time required for the erection of the works, and completion of tramroad, would be about three years. During the first year, the small works at Tendukera would be put to work, and the mines at Tendukera and Mopani fairly opened. If both coal and iron proved fully satisfactory, the tramroad and large works would be proceeded with, and might be furnished and put fairly to work within two years. It would not be merely the erection of the works that would render three years necessary for their completion; but the fact that at least two thousand workmen must be got together and trained before a work of this size could be put into operation.

The cost of iron I should estimate as under, taking the expense of labour at the same amount as it would be in England; and considering that Native labour can be obtained at 2 annas per day, while in England from 3s. to 8s. per day is paid, I think this may fairly be done.

*Cost of Pig-Iron.*

|   | £     | s. | d. | £ | s. | d. |
|---|-------|----|----|---|----|----|
| Iron ore, 3 tons, at 5s. per ton. . . . . | 0     | 15 | 0  |   |    |    |
| Charcoal, 1½ ton, at 15s. „ . . . .       | 0     | 18 | 9  |   |    |    |
| Coal, 1 ton, at 2s. „ . . . .             | 0     | 2  | 0  |   |    |    |
| Wages . . . . .                           | 0     | 5  | 0  |   |    |    |
| Sundry expenses . . . . .                 | 0     | 5  | 0  |   |    |    |
|   | <hr/> |    |    | 2 | 5  | 9  |



*Cost of Puddled Bars.*

|                                     | £     | s. | d. | £ | s. | d. |
|-------------------------------------|-------|----|----|---|----|----|
| Pig-iron, 22 cwt., at 45s. 9d. .... | 2     | 10 | 7  |   |    |    |
| Coal, 2 tons, at 2s. per ton .....  | 0     | 4  | 0  |   |    |    |
| Wages .....                         | 0     | 12 | 0  |   |    |    |
| Sundry expenses .....               | 0     | 5  | 0  |   |    |    |
|                                     | <hr/> |    |    | 3 | 11 | 7  |

*Cost of Finished Iron.*

|                                      |       |    |   |   |   |   |
|--------------------------------------|-------|----|---|---|---|---|
| Puddled Bars, 22 cwt., 71s. 7d. .... | 3     | 18 | 2 |   |   |   |
| Coal, 1 ton, 2s. ....                | 0     | 2  | 0 |   |   |   |
| Wages .....                          | 0     | 10 | 0 |   |   |   |
| Sundry expenses and wear and tear .. | 0     | 10 | 0 |   |   |   |
|                                      | <hr/> |    |   | 5 | 0 | 2 |

To which add,—

|  |         |
|--|---------|
| 10 per cent. upon an outlay of £80,000..       | £ 8,000 |
| 5 per cent. upon floating capital of £20,000.. | 1,000   |
| General management.....                        | 2,500   |
| Incidental trade expenses .....                | 1,000   |

Total..£ 12,500

Or upon a make of 13,000 tons per annum, in

|                             |       |   |   |         |
|-----------------------------|-------|---|---|---------|
| round numbers per ton ..... | £ 1   | 0 | 0 |         |
|                             | <hr/> |   |   | £ 6 0 2 |

This cost I feel confident would not be exceeded if the works were erected with care and proper economy. The cost of iron comes out at somewhat less than it could be made in England; and as every ton of iron brought from England will cost, at the distance from the port of this part of the Nerbudda valley, from £12 to £14, there would seem to be an ample margin for profit.

At Agaria, charcoal ironworks might be established at a comparatively small cost. From the absence of coal, it is, however, more suitable for the manufacture of cast-iron than wrought, and would be particularly adapted for the manufacture of railway chairs, cast-iron sleepers, girders for bridges, &c. Wrought-iron may, however, be made by the Continental method of smelting the ore with charcoal, and puddling with wood. The cost of pig-iron would be about the same as at Mopani. Wrought-iron would probably cost £1 per ton more.

The cost of small works for the manufacture of cast-iron, for which the railway would furnish a market, would be about what I have estimated small works at Tendukera. When the railway is opened, the rich ores of Agaria and Jowli may be brought, at a moderate cost, to the coal at Mopani, and by this means will probably be smelted more cheaply than they can be at present. They will then take the place of the Tendukera ore, if it should be found, after a few years' working, that the demands of a large work were exhausting the supply.

In considering the practicability of iron-making in India, the climate and character of the Natives must not be overlooked.

The climate of India I do not think so serious an obstacle to the manufacture of iron as has been supposed.

Climate.

The Natives carry on their smelting operations through the hot months, and expose themselves to as great a heat as would be necessary in a work upon the European system.

Neither do I agree with those who think the Natives of India physically unfitted for the work. There may

Character of Natives as Workmen.

be said to be three sorts of labour in an iron-work,—

1st,—Mining, or working the coal and iron ore ;

2nd,—Smelting or converting the ore into pig-iron at the blast-furnaces ;

3rd,—Manufacturing or converting the pig-iron into wrought.

Now no one doubts the applicability of Native labour for the first : mines are worked in many parts of the country by Natives, and the experience of the Bengal collieries shows that they are all that can be required for raising coal.

That Native labour is equally adapted for the work at a charcoal blast-furnace is proved by the experience of the " East Indian Iron Company" at Madras, and by the late experiment in the Himalayas ; and, in fact, there is nothing in the work that can present any difficulty after a certain number of men are once trained.

In the third process the labour is more severe, but I have no doubt that Natives can be trained to undergo it, from the fact that it is not continuous : ten or fifteen minutes violent exertion at a time would be required, but followed by a period of rest. Now this is just what the Natives are capable of : they can for a short time exert a degree

of strength very little short of a European, although they could not continue to do so for a length of time. Of course three or four Natives will be required to do the work of one European, as is the case in every other description of work in India.

I do not therefore think that iron-making will present much greater difficulties than other branches of industry, and I have no doubt that, in the district under consideration, where the mere freight of iron from England will be from £5 to £6 per ton, that iron can be made more cheaply than it can be imported.

I have the honour to be, &c.

(Signed) J. H. BLACKWELL,

Mineral Viewer.

*Bombay, 10th June 1857.*

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SELECTIONS FROM THE RECORDS OF THE BOMBAY  
GOVERNMENT.

No. XLVII.—NEW SERIES.

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REPORT ON A PROJECT  
FOR  
THE SUPPLY OF WATER  
TO THE  
POONA CANTONMENT.

BY  
CAPTAIN PHILIP LEWIS HART,  
BOMBAY ENGINEERS.

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With Plans and Sections  
(In a Separate Case).

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1858.



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“To select and mature the most promising of the various schemes either already submitted, or which he (the Officer deputed on the duty) might himself find it expedient to suggest.”—*Extract from Chief Engineer of Public Works' Letter to Government, No. 10211 of 1856, dated 20th December, paragraph 16.*

---

1. The following are the various schemes which have been already submitted for supplying the Poona Cantonment with water ; but they are all, more or less, so mixed up with the supply to the City of Poona, that I have been unable to separate them, although the former is the subject with which I have to deal in this Report.

2. Captain Jacob's proposal (dated 4th December, 1851) was for increasing the supply of water to the City of Poona by removing the *supposed* deposit from the Lower Kartriz Tank.

3. Captain Graham's projects (dated 31st October, 1851) for supplying the City of Poona and the Cantonment are as follows:—  
*For the City of Poona.* 1st. By increasing the supply of water at the Lower Kartriz Tank in different ways. By raising the wall of the Kartriz Tank, at an estimated cost of Rs. 18,402. For increasing the supply in the Kartriz Tank, by conveying the water from the upper to the lower tank ; and by the construction of various masonry aqueducts to catch the water from a certain Nullah and supposed spring, at an estimated cost of Rs. 66,704. 2nd. By constructing



sluices at the Sangroon, Kanapoor, and Gorleh Dohos, or natural lakes, in the Mootta River twelve miles west of Poona, and allowing the water therefrom to flow down the bed of the river to Poona: this project does not appear to have been estimated. *3rd.* By increasing the supply of the Nana aqueduct: this also was not estimated.—*For the Cantonment of Poona.* *4th.* By increasing the supply of Rastiah's aqueduct in different ways. By extending the same at an estimated cost of Rs. 2,725. By doming over two wells and conveying their water to the aqueduct, at an estimated cost of Rs. 30,000. *5th.* By obtaining possession of the Chowdrey's aqueduct, and throwing the supply therefrom into Rastiah's aqueduct, and, in return, supplying that portion of the City of Poona called Vetel Peth from the Kartriz aqueduct. To collect the overflow of Rastiah's aqueduct during the monsoon into two reservoirs, one in the Civil Lines and the other near the Collector's Office, at an estimated cost of Rs. 3,755 and Rs. 4,000. *6th.* If the Chowdrey will not give up his aqueduct, to complete the supply to the Cantonment by a new Bund above the village of Great Kondwah, and building a new aqueduct from the Kondwah Nullah, parallel to the Chowdrey's aqueduct; and by sinking shafts in different directions in the hot weather, with the view of finding out springs, and conducting them to the main aqueduct, at an estimated cost of Rs. 1,26,886.

4. Captain Kilner's project (dated 15th January, 1852) for supplying the Cantonment and a portion of the City of Poona, consisted of bringing the water from the Upper Kartriz Tank, at an estimated cost of Rs. 1,11,887, by iron pipes into the cistern near St. Mary's Church; from this cistern to one in the Bowanee Peth, and a branch to the Malcolm Tank in the Bazar.

5. Vickajee Meerjee's project (dated 9th October, 1851) was for bringing water from a spring at Duncowree to the Bowanee Peth in the City of Poona, estimated by him at Rs. 50,000, and by Major Kilner at from Rs. 60,000 to Rs. 70,000. .

6. To complete the supply from the Jamsetjee Bund Water-works, at about two lacs and forty-one thousand gallons daily for the Cantonment, Bazar, and suburbs, by steam power, at an outlay of Rs. 1,60,122.

7. Captain Berthon's scheme (dated 10th March, 1853) was to

construct an under-ground Bund of masonry across the Kondwah Nullah, for the supply of the Cantonment, with an arched gallery, to be incorporated with the masonry of the Bund, to act as filterer and receiver. From the receiver, the water is to be carried in a 15-inch main to a central cistern, or to some convenient position in or near the Horse Artillery Lines, whence it is to be led by branch pipes to the Barracks, and other public places of resort requiring a supply, at an estimated cost of Rs. 1,23,910.

8. Mr. Reeves, the Revenue Commissioner, recommends the con-

Mr. Reeves' letter, No. 1875 of 1855, dated 3rd July, also paragraph 15 of No. 3220 of 1854 Military Board's letter, No. 1023 of 1855, dated 5th February. Chief Engineer of Public Works' report, No. 10211, dated 20th December, 1856.

struction of a dam across the Mootta River between Sangroon and Gorleh, where the water of the river is retained in extensive natural reaches, called Dohoos, with iron pipes from them into the Cantonment and City, and he suggests that some of the water could be sold for irrigation.

9. Mr. Gerrard, Civil Engineer, proposes a scheme (dated 18th October, 1856) for the supply of the Poona Cantonment only, by damming up the Ambeygaum Valley, and leading the water in a conduit of earthenware pipes to a distributing reservoir at the back of the Hospital to the Wanowree Barracks, and thence by iron pipes to the various localities in the Camp and Cantonment Bazar, at an estimated cost of Rs. 2,48,917.

10. Before offering any remarks on the various projects above mentioned, I will premise, that a population of forty thousand (in round numbers; see Appendix, Letter A) have to be supplied daily throughout the year with twenty gallons of water per head, which is the minimum allowed for in England; and that the question of a supply of water to the Poona Cantonment involves the equally important one of a thorough drainage and sewerage of the whole site; a point, however, upon which I have not been called on to report, but which must be borne in mind in connection with any efficient project of water supply. On this latter consideration alone I should have much preferred a calculation of thirty gallons per head; but, as it might perhaps be considered that I had exaggerated the wants of the Camp, in assuming the requirements at that rate, I will retain the former quantity of twenty gallons, being, I believe, as before observed, the minimum supply usually allowed for in England.

11. The quantity of water then required for forty thousand people, at twenty gallons per head, amounts to a supply of eight hundred thousand gallons daily, or two hundred and ninety-two million gallons yearly,—taken, in round numbers, at three hundred million gallons; the water being delivered into a distributing reservoir of such an elevation as to be able, when required, to flush every drain and sewer in camp which may hereafter be constructed.

12. The above are the main standards by which I consider all the foregoing projects must be compared, although it must be borne in mind that, at the time they were framed, the population was nothing like the present number of forty thousand; that the quantity, even of twenty gallons per head daily, would have been considered much in excess of the actual wants, and that the subject of the sewerage of the Camp had not become so important a matter as at present, when the population has so much increased. This is clear, as the drainage of the Camp in connection with the water supply is not noticed, that I can discover, in any of the Reports hitherto submitted.

13. This does not concern the supply to the Cantonment in the least, as it refers to the Lower Kartriz Tank, Captain Jacob's Report. a work specially belonging to the Municipality, for increasing the supply to the City of Poona; but I allude to it for two reasons, which I cannot pass over without remark. The first, that Major Kilner considered the filling up by deposit of the Lower Kartriz Tank an illusion; and the second, because it was considered, both by the same Officer and Captain Graham, that raising the Bund wall of the tank was a cheaper method of obtaining an extra supply of water than by excavating the *débris* out of it.

\*14. I can observe that, during the last seventeen years, the deposit in the lower tank has increased considerably, and is easily accounted for.\* Portions of the retaining walls to the artificial supply channel

\* When I was in Poona in 1839, as Assistant Superintendent of Roads and Tanks, one of these walls had been rebuilt by Lieutenant Wood, and had been carried away during the first floods which came down the supply channel. It could not be rebuilt until the monsoon moderated, and doubtless, during the period the wall remained unbuilt, large quantities of deposit found their way into the bed of the tank. Whether this has happened since I cannot say, but the appearance of different portions of the wall favours the idea that they must have been rebuilt at some time or other.

have at different periods been washed down, generally of course at the first heavy floods of the monsoon; and through the gap so created, and which could not be rebuilt during the rains, large quantities of mud have been brought down from the hills, and deposited in the bed of the tank. With respect to raising the Bund of the tank being cheaper than excavating the mud out of it, it certainly may be, if the mere excavation of the mud by manual labour from the bed of the tank, and depositing it on the banks, be intended; but, if properly managed and cared for, immense quantities might be yearly got rid of by washing it out in a liquid state through the sluices at a small cost. The evil has probably now gone too far for any arrangement of this description being of much use.

15. In the year 1841, from the 3rd of May to the 11th of June, 171 prisoners from the Poona Jail were encamped on this work, and, with the aid of some free labourers, a large quantity of the deposit then formed was washed out through the sluices in a liquid state. Since this period, as far as I have been able to ascertain, no attempt whatever has been made to get rid of any of the deposit, beyond yearly opening the sluices to allow of the first floods of the rainy season to pass off, and to close them when the feeding channel runs clear. I rather doubt whether even this has been regularly attended to. Having been some years ago an assistant to the Superintendent of Roads and Tanks in this Collectorate, and had something to do with this work, I am enabled to offer an opinion regarding the deposit formed in it, and which is still in progress in my opinion; and I have no hesitation in saying that it is rapidly filling up, like the one above it, and that it is, from long and continued neglect, becoming inefficient as a storage reservoir for water.

16. Of the six projects submitted by Captain Graham, three refer to the supply of water to the City of Poona, and three to the Camp. The one relating to the bringing water from the Sangroon, Kanapoor, and Goreh Dohos I shall hereafter offer a few remarks on; at present I will confine myself to the notice of those referring to the Cantonment supply. From a careful inspection of the works alluded to by Captain Graham, it appears to me that not one, or all the projects taken together, as regards the Chowdrey's and Rastiah's aqueducts, collecting their overflow in the monsoon, extending or uniting them, or by

doming over the wells mentioned, and conveying their water to these works, would give the supply now required, viz. eight hundred thousand gallons daily throughout the year; and supposing the supply to be sufficient, I much doubt if the water could be delivered by gravitation at such an elevation as to supply every public building in the Camp, or be made available for flushing the sewers and drains to be hereafter laid out.

17. Captain Graham's proposal regarding these two works, Rastiah's and the Chowdréy's aqueducts, was as follows (see his letter No. 2300 of 1853, dated 8th August, paragraph 2):—

“To make the matter at issue as clear and concise as possible, I must remind the Board of the nature of my proposal, which is to supply the whole of the City of Poona from the Kartriz aqueduct, and the Cantonment of Poona from the joint supply obtainable from Rastiah's and the Chowdrey's aqueducts.”

Captain Graham then goes on to observe, whether the supply obtainable from these two aqueducts, added to the probable increase from new sources, will suffice; and compares his scheme with those of Major Kilner and Captain Berthon. I have taken below the most favourable results anticipated by Captain Graham from the proposed improvements to these aqueducts, which are as follows:—

|                 |          |          |
|-----------------|----------|----------|
| 19th March..... | 3,38,798 | gallons. |
| 31st do. ....   | 2,53,496 | ”        |
| April .....     | 2,11,702 | ”        |
| May .....       | 1,32,345 | ”        |

After a long and somewhat tedious correspondence on the subject of these two aqueducts, the owners, Rastiah and the Chowdrey, refused to give them up to Government. (Mr. Reeves' letter, dated 15th February, No. 510 of 1856.)

18. The only other project remaining to be noticed of Captain Graham's, is that for constructing a dam above the village of Great Kondwah, and building a new aqueduct parallel to the Chowdrey's. As regards the locality for supplying the Camp, nothing could be better; its situation and distance are admirable. The levels also suit well, as the proposed site for a dam is 135·75 feet above the old Hospital Compound in front of the solitary cells, one of the

highest points in the Camp. But, if the general configuration of a valley for impounding water ought to be deep, with steep sides and surrounded by lofty hills, then the Kondwah valley does not, certainly in my opinion, answer this description. It is flat and shallow, and only bounded by lofty hills at its head, without any spurs of the slightest consideration from the main range to form its sides. I think therefore that this valley, from the above cause, is extremely ill adapted for impounding water, although in it there is a large quantity of underground drainage, fifteen or twenty wells being worked, during the hot weather, on its banks for the Pawn gardens.

19. To show how extremely shallow a valley it is generally, I would remark that the dam proposed by Captain Graham for a reservoir above the village of Great Kondwah, when raised to its greatest possible height, is only 32 feet, with a length of 1,400 feet. The estimated supply daily for the hot weather comes to seven hundred and ninety-five thousand gallons for three months, one-third of the actual contents having been taken for evaporation; but, in a flat shallow work of this description, the surface evaporation would in all probability be much greater.

20. I will now proceed to notice Major Kilner's project for supplying the Camp and a part of the City of Poona with water from the Upper Kartriz Tank. Major Kilner reckons the Camp population at twenty-four thousand, and the quantity to be allowed for per head at eight gallons. The quantity required, therefore, is one hundred and ninety-two thousand gallons daily, to which is to be added, for the Horse Artillery horses about four thousand gallons, and for Sir Jamsetjee Jejeebhoy's premises five thousand gallons, making altogether two hundred and one thousand gallons. The Upper Kartriz Tank he calculates to contain forty-seven million nine hundred and fifteen thousand gallons, exclusive of all water in the deposit, with which it is about two-thirds filled up, which for 182 days, or half the year, affords two hundred and forty-one thousand two hundred and ninety-one gallons daily. In this no account is taken of the water in the deposit, or "black clay," supposed to consist of 20,430,956 cubic feet, of which probably, Major Kilner states, one-sixth is water, giving twenty-one millions, two hundred and eighty-two thousand, two

hundred and forty-three gallons in this medium. This is in addition to the daily supply above.

21. The total supply therefore, including that in the "black clay" (which has to be got at), amounts to sixty-nine millions, one hundred and ninety-seven thousand, two hundred and forty-three gallons, which would give daily throughout the year a supply of one hundred and eighty-nine thousand five hundred and eighty-one gallons, or daily for half the year three hundred and seventy-nine thousand one hundred and sixty-two gallons. Since Major Kilner's report was written, the Camp population has increased from twenty-four thousand to forty thousand, and the rate per head daily, which he calculates at eight gallons, is, without doubt, much under the mark. It is therefore very apparent that his project would not supply the present demand. I consider that Major Kilner has much underrated the evaporation. Over an area of 1,916,600 square feet, of an average depth of six feet, an extensive shallow expanse, the evaporation is only taken at one-third, or two feet of depth over the whole surface; whereas, with very little of the supply drawn off, the evaporation alone would go considerably towards emptying such a reservoir.

22. I feel satisfied, from having carefully watched this tank during the last hot season, that it cannot be depended on, in its present state, for a full and constant supply of water throughout the year. It is also to be observed that, whatever water is taken from the Upper Kartriz Tank interferes with the supply to the lower tank. This work, in fact, as much belongs to the municipality of the City of Poona as the lower tank does; and as Government are precluded (Government Resolution dated 19th September, 1855), by the express orders of the Honorable Court, from expending public money in order to provide an enlarged supply of water to the City of Poona, even supposing that the upper tank contained sufficient storage room for the supply of the Cantonment, it does not appear to me, under existing circumstances, how it could possibly be appropriated to such a purpose.

23. With reference to this Lower Kartriz Tank, which is fed to a great extent by the upper one, I would observe that the following Government buildings in the City of Poona are supplied with water from it:—

| Name of Building.       | Probable No. of Government<br>servants using the water. |
|-------------------------|---|
| 1. Shunwar Palace ..... | 173   |
| 2. Boodhwar do. ....    | 574   |
| 3. Nana's do. ....      | 79  |
| 4. Jail .....           | 413   |
| Total....               | <u>1,239</u>  |

24. As regards the water held in suspension by the deposit in the Upper Kartriz Tank, the quantity of it is of course a surmise; and as the difficulty of getting at it by simple means Major Kilner pronounced to be almost insurmountable, in so far as it affects that Officer's calculations, it was very properly omitted from his estimate of supply. I consider that Captain Graham has suggested the only way of getting at it, viz., by sinking deep shafts and connecting them by galleries or cuts covered over, extending over the whole bed of the deposit, and leading these channels into one or more main channels, as might be found convenient, through the Bund. What the actual supply would be by tapping this extensive water-bearing *débris*, it is impossible to say. If a very frequent inspection of this work, and a mere practical opinion be worth anything, without figures, I should say its capabilities of supply were very considerable, but that no satisfactory information could be obtained on this point, without going to some actual experiment, which, in all probability, would be attended with considerable expense.

25. I have very frequently inspected the little valley of Duncowree, from which Vickajee Meerjee proposed obtaining a supply of water for a portion of the City of Poona; and, for its extent, I am of opinion that its capabilities are very considerable, but of too limited a character as an independent supply, although in any scheme which would admit of employing it as a subsidiary, it would, I am sure, be likely to prove a very valuable one.

26. There is nothing to observe regarding this work, except that it has, I believe, been abandoned as a principal source of supply, owing to the polluted nature of the water, receiving as it does, at no great distance off, the whole sewerage from the City of Poona.

Jamsetjee Bund Water-works.



27. This project is for what Captain Berthon terms "an underground Bund across the Kondwah valley stream." There is no doubt that it would add most materially to the supply of the present Chowdrey's aqueduct. I am of opinion that it is the only work of the sort adapted to the nature of this valley. As regards the supply of water to be derived from it, it is impossible to conjecture even, but I should be inclined to doubt much if 800,000 gallons daily could be furnished from such a contrivance, in the locality indicated.

28. These projects are the same, for bringing the water confined in the Sangroon, Kanapoor, and Goreh Dohoo, or pools in the bed of the Mootta River, for the supply of the City and Camp of Poona. Captain Graham's and Mr. Reeves' project for bringing water from the Sangroon Dohoo. I carefully inspected these pools, which are fifteen or sixteen miles south-west from Poona; their extent is as follows:—

| Names of Dohoos.       | Measured by Major Kilner in October and November, 1851. |            |                 | Measured by Captain Hart in February, 1857. |        |                 |
|------------------------|---|------------|-----------------|---|--------|-----------------|
|                        | Length.   | Width.     | Greatest Depth. | Length.                                     | Width. | Greatest Depth. |
|                        | M. F. Yds.  | Feet.      | Feet.           | M. F. Yds.                                  | Feet.  | Feet.           |
| Goreh Dohoo . . . . .  | 0 7 38  | 222 to 425 | 9½              | 0 6 180                                     | 250    | 5               |
| Kanapoor Dohoo . . . . | 0 7 93  | 256 to 269 | 11½             | 1 0 100                                     | 250    | 6               |
| Sangroon Dohoo . . . . | 1 1 186   | 180 to 310 | 17½             | 1 2 30                                      | 230    | 10½             |

29. One set of levels was taken by Mr. Gerrard, C.E., in November, 1855, and the difference of level, between the top water of the Sangroon Dohoo (the uppermost) and the top of the centre of the Jamsetjee Bund, was found to be 94·59 feet. The same levels were taken very carefully by Surveyor and Builder Venaik Bhickajee\* in February, 1857, and was found by him to be 81·74 feet, the difference being caused, in all probability, by the fall of the water between November and February, and, deducting the depths at about these

\* The Sangroon Dohoo is the uppermost pool, and the Goreh the one nearest Poona. The difference of level between the top waters of these two pools was at the same time found to be 26·13 feet,—a considerable fall in so short a distance.

|                |                                 |   |
|----------------|---------------------------------|---|
| Mr. Gerrard's. |                                 | periods, would make the bottom of the Sangroon Dohoo (the uppermost) 76·84 feet higher than the top of the Jamsetjee Bund as levelled by Mr. Gerrard, C.E., and 71·24 feet as levelled by Surveyor and Builder Venaik Bhickajee. Mr. Gerrard, C.E., made no measurement of the depth when he took the levels in November 1855. I have therefore assumed the depth to be that taken by Major Kilner in October and November, 1851, which will account for the difference in the two sets of levels, both of which were taken from the top waters, and which, of course, are constantly fluctuating. Again, in measuring the greatest depth of such an extensive sheet of water as the Sangroon Dohoo, differences must unavoidably occur; however, I think that these levels, taken by different individuals at different times, are sufficiently near for all the practical purposes of determining if water can or cannot be delivered in the Camp of Poona by gravitation from these natural pools in the bed of the Mootta River. I will, therefore, take the mean of the two sets of levels $\frac{76\cdot84 + 71\cdot24}{2}$ , and consider the bottom of the Sangroon Dohoo to be 74·04 feet above the top of the Jamsetjee Bund, about the centre of it. |
| 94·59          | Depth measured by Major Kilner. |   |
| 17·75          |                                 |   |
| <hr/> 76·84    |                                 |   |
| Venaik's.      |                                 |   |
| 81·74          | Depth measured by Venaik.       |   |
| 10·50          |                                 |   |
| <hr/> 71·24    |                                 |   |

30. From careful levels\* taken between fixed points in the Camp of Poona, and the top of the Jamsetjee Bund, the bottom of the Sangroon Dohoo above the same point, viz. 74 feet, is found to correspond with points in the Camp of Poona, as follows:—

Corner of His Excellency the Commander in Chief's compound; exactly.

The Sapper and Miner Lines; the point is two feet lower.

Front of the Ghorepoorie Barracks; all of which are situated in the lower parts of the Cantonments. Points in the new Wanowree Barracks are 164·9 feet and 176 feet above the top of the Jamsetjee Bund, and in the Horse Artillery Lines 169 and 152 feet above the same point. I trust that these levels sufficiently prove that water cannot be delivered from these Dohoos to all parts of the Poona Camp

\* I am indebted to the kindness of Mr. Coke (in charge of the Engineer School) and his pupils, for this assistance.

by gravitation. There is no necessity to remark on the immense distance they are off, some sixteen miles, when other sources are comparatively close at hand.

31. This valley is situated about five miles south-west of the City of Poona, across the mouth of which Mr. Gerrard proposes to throw an earthen embankment, leading the water from the reservoir so formed, by a deep cutting with a considerable fall, across the small plateau between the Kartriz and Ambeygaum valleys, and continuing the conduit, following the sinuosities of the hills to a distributing reservoir in rear of the Hospital, old Wanowree Barracks, from which reservoir a system of earthenware piping, set in grout, is to convey the water to a number of open tanks situated in different parts of the Camp. This latter was, I believe, altered by Colonel Scott, the Superintending Engineer Central Province, to iron piping.

32. The quantity of water thus impounded, Mr. Gerrard calculates, will, making ample allowance for evaporation, amount to 57,192,400 cubic feet, or 357,452,000 gallons, which would give daily throughout the year at the rate of 979,323 gallons; more, by 179,323 gallons, than I have assumed the requirements to be.

33. I have now, I believe, noticed all the various schemes for supplying the Camp with water. I have most carefully gone over every one of the works, and examined them many times; I have also examined carefully the neighbourhood of Poona for other sites. I have nothing new to suggest, as every available situation is more or less occupied; and I have no hesitation in pronouncing that I consider Mr. Gerrard's scheme best adapted to present requirements. As far as I can see, it does not interfere with any real or supposed rights on the part of the municipality of Poona, or of individuals. The gathering ground is good and ample; there are no engineering difficulties whatever in the works; and the valley possesses all the requisites for an impounding reservoir, in a most favourable degree; and as Mr. Gerrard's designs for the details of this project have been noticed as objectionable by the Chief Engineer of Public Works (Chief Engineer of Public Works' letter to Government, No. 10211 of 1856, dated 20th December) in several particulars, having selected it as the most promising of the various schemes submitted, I now proceed to mature

it, keeping in view the Chief Engineer's remarks above alluded to. At the same time, I will not mislead Government by allowing them to suppose that it can be carried out for a small outlay. Supplying forty thousand people with pure drinking water from a distance of six or seven miles, and delivering it at convenient situations over a large and extensive Camp, besides providing storage room for a head of water to flush sewers and drains, in addition to the main reservoir, cannot be carried out for a small amount.

34. The general explanation of the scheme now submitted is as follows—The construction of an earthen dam

A general explanation of the scheme submitted by Captain Hart.

across the gorge of the valley near the village of Upper Ambeygaum, 1,270½ feet in length, its greatest height above the bed of the stream being 59·86 feet. From the reservoir so formed, the water will be led by either an iron conduit pipe or masonry aqueduct, whichever may be the most economical, to the most favourable point for crossing the small plateau of the spur dividing the Kartriz and Ambeygaum valleys. Through this portion a tunnel will be driven 2,781½ feet long, opening at the head of the Duncowree Valley. The course then for either pipe or aqueduct will be down this little valley for some short distance. If by pipe, it will run almost straight to a distributing reservoir to hold one or two days' supply, near the solitary cells in the Camp of Poona; and if by an aqueduct, before reaching the mouth of Duncowree Valley, it will branch off, running slightly up the Kartriz Valley, crossing the Kartriz aqueduct, round under the village of Beebee Warree, and thence following the sinuosities of the hills to the distributing reservoir above mentioned. If by a masonry aqueduct, the length will be 7m. 6fur. 65½yds.; or, by an iron pipe, it will be 5m. 1fur. 94½yds., the total fall from the bottom of the reservoir being 80·25 feet. The distributing reservoir, as above observed, will either contain one or two days' supply, and from it the water will be conveyed to every part of the Camp by iron pipes, with a stand-pipe at each cistern. The situation of the cisterns, their number and capacity, will correspond with the wants of the neighbourhood in which they are located.

35. The following Plans accompany this Report. All have been surveyed and prepared afresh, without the slightest reference to those submitted by Mr.

Plans accompanying the Report.

Gerrard, C.E., which, from their description, I imagine were intended to be of an entirely preliminary nature.

No. 1.—Trigonometrical survey of the Ambeygaum valley, and country between it and Poona.

No. 2.—Plan of the embankment, with longitudinal and transverse sections, &c. &c.

No. 3.—Contoured Plan of the reservoir, with site of the waste weir and cut, &c. The contours being taken at every four feet of vertical distance.

No. 4.—Plan, elevation, and section of the gangway, with details, &c.

No. 5.—Plan, elevation, and section of the inlet tower.

No. 6.—Various details, with a plan and section of a two days' distributing reservoir.

No. 7.—Various details, with a plan and section of a one day's distributing reservoir.

No. 8.—Plan and longitudinal sections of the whole course of an iron pipe and masonry aqueduct, with details, &c.

No. 9.—Plan of the Cantonment and Lines at Poona, showing the proposed distribution throughout the Camp.

36. The valley of Ambeygaum is situated about five miles south-west of Poona, being one of those formed by the spurs which run out from the Singhur range of hills. Its southern limit is very lofty, being the main range itself, while on the east and west sides well-defined and lofty spurs run out. The general configuration of the valley possesses, I am of opinion, every requisite as a drainage area for collecting water. It is particularly deep and precipitous at its upper end, and flanked by lofty hills. At its lower end, near the village of Upper Ambeygaum, the mouth contracts, and it is at this point I propose constructing the earthen dam. I believe it to be the very identical spot, or very nearly so, selected by Mr. Gerrard. Excellent material for its construction abounds on the spot.

37. In paragraphs 10 and 11, and from the letter in the Appendix marked A, which was framed with much care, it is stated that the population of the Camp and Bazar, including Horse Artillery, horses, &c., amounts to 37,882, which, in

Requirements of the Poona Cantonment, as to the supply of water.

round members, may be assumed at 40,000, and with the allowance of twenty gallons per head daily, the minimum allowed for in England, 292,000,000 gallons will be the annual requirement; but, to allow a safe margin, for the reasons stated in the concluding part of this paragraph, 300,000,000 gallons per annum may be assumed as the quantity required.

|                               | Gallons.    | Cubic Feet. |
|-------------------------------|-------------|-------------|
| Per annum, required . . . . . | 300,000,000 | 48,154,093  |
| „ day, „ . . . . .            | 821,917     | 131,929     |
| „ hour, „ . . . . .           | 34,246      | 5,497 .     |
| „ minute, „ . . . . .         | 570.77      | 91.61       |
| „ second, „ . . . . .         | 9.51        | 1.52        |

Ample allowance having, I think, been made in the calculation, for the remaining purposes of waste, leakage, flushing sewers, watering camp roads or public trees, and especially for future requirements to the Railway terminus, and extension to the Civil Lines, the surplus for which amounts to 24,921,400 gallons yearly, or daily to 68,277 \*gallons, equivalent to supplying 3,414 individuals with 20 gallons per head daily, or about nine per cent. above actual present requirements.\*

38. From a most careful survey of this valley, the catchment basin, or gathering ground for the reservoir, contains an area of 4 sq. miles, 232 sq. acres, 22,680 sq. feet; or, 2,792 acres, 22,680 sq. feet.

39. From the Appendix marked B, containing observations of the rain-fall at Poona for the last twelve years, made at the Staff and Civil Hospitals, the average over that period is 25 inches 89 cents. The fall of rain, however, amongst the hills of the Ambeygaum Valley is, in all probability, much greater. The minimum fall extending over the same period is 14 inches 78 cents. As 640 acres equal a square mile, and one acre is equal to 43,560 sq. feet, a fall of one inch of rain is equal to 3,630 cubic feet per acre, and  $3,630 \times 640 = 2,323,200$  cubic feet

\* It was partly with a view of providing at any time an increased supply that the pipe and aqueduct were led down the Duncowree Valley. Cuts in this valley, connected with the main conduit, would, I am of opinion, furnish a large additional supply at any time.

per square mile. Therefore a fall of twenty-five inches will be 58,080,000 cubic feet per square mile; and for four square miles 232,320,000 cubic feet, or 1,447,353,600 gallons. With the minimum fall of fourteen inches for four square miles, the amount will be 130,099,200 cubic feet, or 810,518,016 gallons, of which only 6-10ths may be considered available for the supply of the reservoir; making, with the average fall of twenty-five inches, 868,412,160 gallons, and with the minimum fall of fourteen inches, 486,310,809 gallons;—in the first case, the supply being nearly three times as much as is actually required; and with the minimum fall, one and a half times more. I have assumed 6-10ths of the rain-fall as the available supply for the reservoir, as being the quantity usually allowed for, I believe, in England.

40. Attached to this Report, in the Appendix lettered C, is a

Result of gauging, during the last hot season, the Great Kondwah Nullah, the back of the Upper Kartriz Tank, and the Ambeygaum Nullah.

return of the water gauged at the Great Kondwah Nullah, the back of the Upper Kartriz Tank, and the Ambeygaum Nullah, from the 24th February to the 8th June, 1857; the general result of which is as follows :— \*

|   | Gallons.       |
|---|----------------|
| The Great Kondwah Nullah supply was . . | 1481 per hour. |
| The Upper Kartriz Tank do. . .          | 300 „          |
| The Ambeygaum Nullah do. . .            | 1179 „         |

A sufficient approximation, I think, that the first and last, affording such a supply during the hot season, are amply sufficient for supplying the Camp, while several heavy floods passed down these streams and were lost; and as regards the Upper Kartriz Tank, sufficient dependence is not to be placed on it, in its present condition, as a means of supply.\*

41. Having shown that the gathering ground is more than ample for the supply of the estimated requirements,

Storage capacity of the proposed reservoir.

I proceed to notice the storage capacity of the reservoir. The following Table shows the contents of different heights, the contours having been taken at 4 feet vertical distance apart :—

\* At this time, 3rd August, 1857, the tank is nearly dry.

| Depth of Reservoir. | Area in Acres and Square Yards | Cubic Feet. | Gallons.    |
|---------------------|--------------------------------|-------------|-------------|
| Feet.               | Acres. Sq. Yds.                |             |             |
| 4                   | 4 2593                         | 790,316     | 4,923,668   |
| 8                   | 8 1041                         | 2,221,711   | 13,841,278  |
| 12                  | 13 2436                        | 1,571,551   | 28,499,471  |
| 16                  | 17 4670                        | 7,704,774   | 18,000,742  |
| 20                  | 23 4246                        | 11,865,170  | 73,920,009  |
| 24                  | 28 2732                        | 16,842,272  | 101,927,354 |
| 28                  | 34 952                         | 22,800,724  | 142,018,535 |
| 32                  | 40 1370                        | 29,919,666  | 181,776,519 |
| 36                  | 45 2798                        | 37,761,220  | 235,252,400 |
| 40                  | 51 864                         | 46,678,598  | 290,807,665 |
| 44                  | 63 3028                        | 57,764,750  | 359,874,392 |
| 48                  | 77 2979                        | 71,288,504  | 444,127,387 |

So that, with the dam at the 40-feet high contour, the reservoir will contain 290,807,665 gallons, sufficiently near the requirements assumed, of 300,000,000 gallons, for all practical purposes.

42. Colonel Scott, the Superintending Engineer of the Central Province, from experiments made on differ-

Evaporation. Col. Scott's letter, No. 605 of 1856, to the Assistant to the Chief Engineer of Public Works, dated 7th February.

ent tanks, states that half an inch per day would be an ample allowance to make. This quantity during the eight dry months would amount to 10 feet annually. In assuming,

therefore, in the Deccan the evaporation at eight feet, I think a safe allowance has been made, as at least two feet may be deducted from Colonel Scott's experiments for casual showers at the commencement of the cold and towards the close of the hot season. The supply therefore of the reservoir, at 48 feet, is 444,127,387 gallons, which is the proposed top water; 4 feet above that again being taken for the top of the embankment; and the bed of the Nullah below the level of the first contour being 7.86 feet, will make the total height of the embankment, in its highest part, that is, from the bottom of the bed of the stream to the top of the dam, 59.86 feet.

43. I will now proceed to give a description of the principal works required, in the following order:—

1. Embankment.
2. Waste weir.
3. Cut to carry off first floods.



4. Inlet tower and filter.
5. Gangway.
6. Aqueduct, pipe, and tunnel.
7. Distribution reservoirs.
8. Camp distribution.

44. The following are the dimensions of some of the principal embankments for impounding reservoirs in England and America :—

1.—*Embankment.*

| Names of Works         | Height above top of Water. | Width of Embankment at top. | Inside Slope | Outside Slope. | Remarks.  |
|------------------------|----------------------------|-----------------------------|--------------|----------------|---|
| Longdendale Reservoir  | 4                          | 27                          | 3 to 1       | 2 to 1         |   |
| Crowden do.            | 4                          | 15                          | 3 to 1       | 2 to 1         | * With a berm 5 feet wide on the inside slope; the remainder of the slope 3 to 1. |
| Albany Works . . . . . | 8                          | 10                          | 2 to 1*      | 2 to 1         |   |
| Brooklyn do. . . . .   | 5                          | 20                          | 3 to 1       | 2 to 1         |   |

I have therefore adopted the breadth of the dam at top to be 20 feet, inside slope 3 to 1, and outside 2 to 1; with a puddle-wall of clay in the centre of the dam 8 feet wide at top, increasing in width at the rate of 4 feet for every 10 feet of depth; and the top of the dam to be 4 feet above the top water. Careful excavations were made along the line of the intended embankment, the bottom of which is shown by the dotted line coloured yellow in the longitudinal section in Plan No. 2, which line denotes the probable bottom of the puddle trench along the whole length. At the foot of the embankment on the upstream side, a small dwarf wall of rubble masonry will be built, for the pitching which protects the inner slope to abut against. The embankment will be formed in regular layers, well watered and rammed, sloping inwards from both faces. Some slight difficulty may be apprehended in draining the trench in its deepest part, to receive the puddle, but excellent material exists on the spot for the formation of both puddle and embankment. The length of the dam will be 1,270½ feet, its greatest height 59·86 feet, the reservoir having an area of 77 acres 2,979 square yards.

45. From a careful observation of most of the remains of tanks which I have seen in this country,—I, of

2.—*Waste Weir.*

course, allude to those formed by earthen mounds, including the ruins of many in the Nundoorbar Talooka of the Kandeish Collectorate,—the embankments almost invariably appear to have failed from having either no waste weir at all, or one of very limited dimensions. The reason of the failure of the embankment of the Kussoordec Tank arose, I believe, entirely from this cause. It is very clear that a sufficient outlet for the rapid escape of heavy floods in works of this nature, in a country where they are occasionally so sudden, is obviously necessary. It will scarcely be credited with what rapidity and suddenness these mountain streams fill, but by those who have actually witnessed it. In May last, the surveyor was surveying the upper portion of the Ambeygaun Valley, and had only just time to remove the chain and field compass out of the Nullah, when it came down, warning having been given in time by a cultivator at work in his fields at some distance higher up the valley. When the flood came down, the man described it like a wall of rolling water, and I can affirm the description to be perfectly true. I feel, therefore, on the above accounts, to be strongly impressed with the absolute necessity of providing an ample outlet for the surplus water, altogether independent of the artificial cut shown in Plan No. 3, which will be hereafter noticed. From an inspection of this drawing, it will be seen that the ground is favourably situated for the construction of the waste weir round the eastern end of the embankment. I have, accordingly, provided for a width of 100 feet, the channel being 841 feet long. With a depth of water of one foot over this channel, the fall of water, according to a formula of De Buat, would be per hour 7,516,968 gallons.

46. There is scarcely a work in the Deccan, whether a dam across

3.—*Cut to carry off first floods.*

a river, or an embankment to dam up a stream, wherever, in fact, running water is opposed to any extent, that silting-up does not follow as a matter of course, and of time only as to its extent. This can be retarded in some degree, by the adoption of such a form of dam that the silting it up may be locally regulated; or by openings in the dam, through which, to a certain extent, it can be got rid of; but no practical means that I have yet seen can wholly prevent it. For instance, supposing,

instead of the earthen mound for the work, that a masonry dam was substituted, and the masonry was perforated everywhere with openings for sluices, the silting-up still takes place at the sides of the reservoir and in the spaces between the openings, for there must be some portion of dead wall in the dam. We have, in fact, practical examples before our eyes everywhere, of works of this nature filling up with deposit.

47. In all tanks formed by damming up running streams,—and the same cause is operating with respect to rivers, take the Khandeish river dams, for instance,—the filling up is doubtless caused by the first heavy floods of the monsoon rains, bringing down with them in suspension portions of the surfaces of the arid hills. This silting-up is in progress, more or less, in every situation under similar circumstances; yet, in moister climates, where vegetation prevails, the progress is of course not so rapid as in dry ones, where, for eight months of the year, the burning sun of a cloudless sky has full play on the parched-up soils. This being immediately succeeded by heavy tropical rains, portions of the surfaces of the hills are annually washed off, and the detritus deposited wherever the course of the running water is obstructed.

48. Whatever advantages may be attached to the sluices formed in a masonry dam, by keeping them open and allowing the first floods of the monsoon to pass through, to disturb the consistency of an extensive earthen mound by any perforations of this nature, however strongly such may be protected, would, in my opinion, be extremely inadvisable.

49. To prevent therefore, as much as possible, the detritus from the hills being brought down during the first heavy floods of the monsoon, and deposited in the reservoir, I propose to divert the feeding channel by an artificial cut, with strong masonry walls across the main and minor streams. This cut will pass round the eastern end of the embankment, as shown in Plan No. 3. Openings will be left in these cross walls, with planks to lift up and down, through which the clear water may be permitted to enter the tank, when the first heavy, muddy floods have passed off. The Lower Kartriz tank is provided with a channel of this description, and it is in all probability owing to this that the tank has not as yet wholly filled up. In such an artificial channel as that recommended, it is particularly desirable that the masonry works across the main and minor streams should

be of strong section, and not likely to fail; or the opening caused by the failure of one wall would allow so much of the deposit to fill the tank as could in all probability never be wholly removed, even supposing sluices were provided; and where there are none, it would remain, and never be got rid of at all.

50. My idea is, although no provision has been made in the estimate for it, as I am afraid it will already amount to much more than was originally contemplated, that four or five capacious wells (those already existing, if repaired, would answer probably), domed over, should be sunk in the lowest portions of the reservoir, each well connected by a masonry duct, or pipe, with a proper fall; certain portions being built dry, with apertures sufficient to admit of the leakage of the water through, but of so small a size as to exclude the formation of deposit in them. These ducts or pipes, being connected with each other, should communicate with the bottom of the inlet tower, and whether the reservoir silted up or not, they would always afford a constant supply of water.\* No evaporation could take place, as they would in time be probably covered with the deposit, this *débris* holding in suspension vast quantities of water, which would find its way to a lower level into these covered wells, and thence, by the inlet tower, to the conduit pipe or aqueduct. Supposing such to have been built at the period the Upper Kartriz dam was constructed, they would now be the sources of a vast and constant supply from the *débris* itself. I never heard of wells failing in the bed of a dry tank, nor have I ever known them even running dry when in the vicinity of such a water-bearing medium.

51. The total length of the cut will be 7,900 feet, with a general section similar to that of the present Nullah; width at bottom 40 feet, with the banks properly sloped.

52. The inlet tower is the means by which the water from the reservoir is filtered, and the supply regulated to the conduit pipe or aqueduct. In tanks

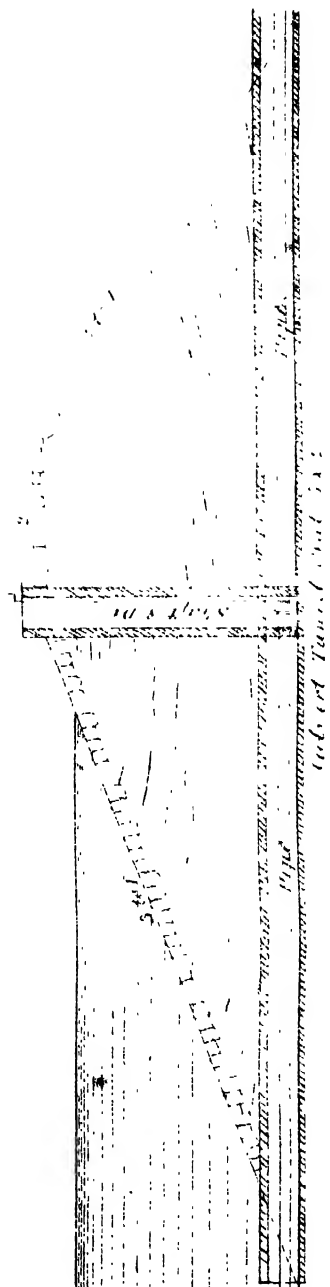
#### 4.—*Inlet Tower and Filter.*

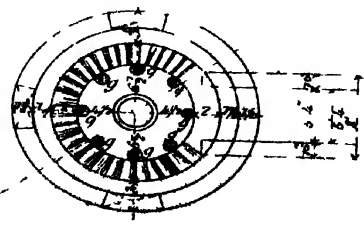
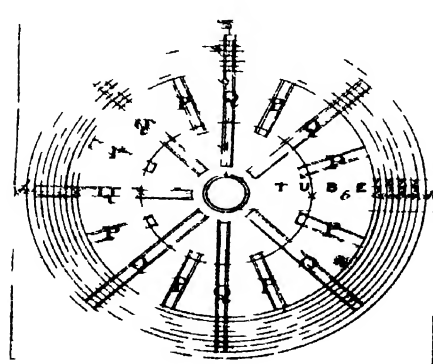
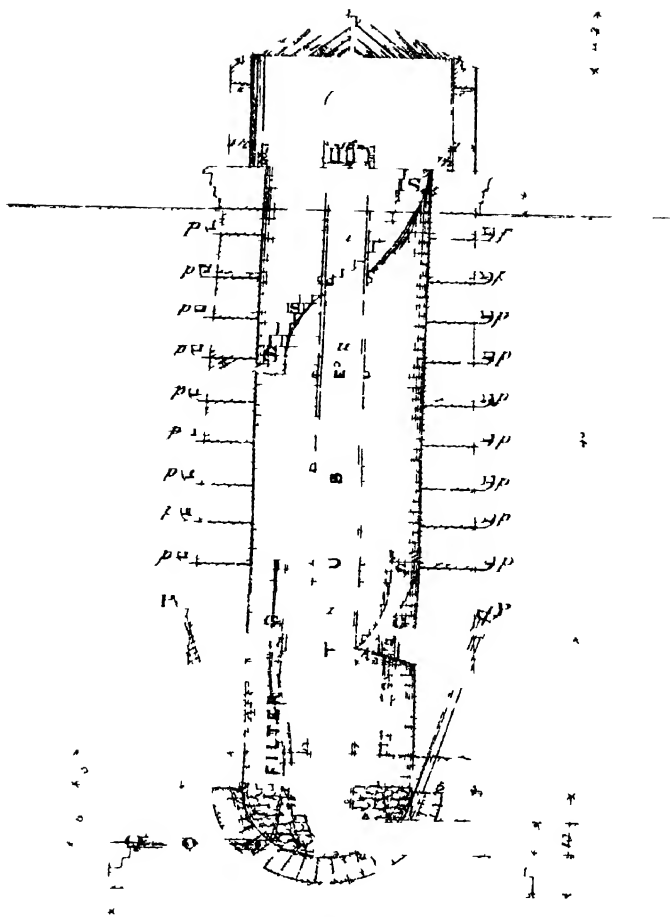
\* There is a large well of this sort in the bed of the Lower Kartriz tank, at its western end near the dam, connected with the aqueduct through the dam wall. On this well, and the water stored in different reaches of the aqueduct itself, is the City dependent for the supply in the middle and at the end of the hot weather. Doubtless the deposit, holding vast quantities of water in suspension, is the source from which the well is supplied; and it is not at all improbable that it covers a spring, which was in existence before the dam was built.

in the Deccan formed with masonry dams, the same principle is not unfrequently observed. A square tower is built in front of the Bund wall, with steps down it, or more commonly holes left in the sides to receive the feet when ascending or descending. The water from the tank is let into the tower by orifices in the wall furnished with plugs, and from thence the supply is regulated to the aqueduct. In some of the works in England an inlet tower of the description proposed is used, while in others (in the Manchester Water-works, I think) there is no tower, but a brick shaft communicates with a culvert running through the embankment in which the supply-pipes are laid. Rods pass up this shaft communicating with the valves in the pipes, and the supply is regulated from the top of the dam. The annexed Diagram will show what I mean.

I have, however, for the reason before explained, a strong objection to interfere with the earthen mound, beyond what is absolutely necessary, or cannot be avoided; I have therefore placed the inlet tower at the foot of the embankment, in the deepest part of the reservoir, in order to obtain the water from the reservoir when at its least possible level. The bottom of the pipe, or aqueduct, has been taken nine feet below the bed of the stream.

53. In order better to explain the use and purposes of this work, I attach a Diagram, to which reference is requested in the following account of it. In the foundation of the work, seven cuts (q, q, q, q, q, q, q) are left filled up with dry stone, radiating from the centre of the tower, through which any springs or drainage can enter at the base of the filter, or water percolate through from the reservoir itself. At a height of 15 feet above the footings of the foundations, iron pipes (p, p, p), eight in number, are built into the walls of the tower, passing obliquely through them. They are placed in the intermediate spaces between the cuts above mentioned (q, q, q). The water from the reservoir enters the pipes (p, p, p) and the cuts (q, q, q) at the bottom of the filter. From this it will be seen that the base of the tower is intended to act as a filter; it is 13 feet in diameter and 23 feet in depth. At the point where the mouths of the pipes (p, p, p) are built into the tower, that is, 15 feet from the footings, the filter is domed over with a stone floor, in which the iron gratings (g, g, g) are built, and screwed down to the stone floor. The water therefore can only enter the tower at the bottom of it, and passes





through the filter by the gratings into the body of it, to obtain the same level as the water in the reservoir outside the tower.

In the interior of the tower, between the top and the domed stone floor (g, g), a staircase of stone (s, s) runs spirally round the inside of the tower. Down the centre of it, extending from the top to the base, an iron cylinder or tube runs, in direct communication with the pipe or aqueduct which it joins. This tube is altogether independent of the tower; it rests on the base of it, and may probably require ties in one or two places to keep it steady, passing through the outer walls of the tower; it passes through the floor (g) to the very base of the tower. This tube is provided with tubular orifices and plugs at every two feet of vertical height, running spirally round it, corresponding with the steps, or the man descending would not be able to reach the plugs for the purpose of opening and closing them. The water then from the reservoir enters the very bottom of the tower, ascending through the filter into the upper part, to the same level as the water outside, and is let off into the tube through the tubular orifices, by opening or closing the plugs (u, u, u, u, u). The tube is proposed to be three feet in diameter, more than its actual requirements as regards the water passing down it, to enable a man or boy to be let down at any time to refix or overhaul the plugs. My object in the adoption of the tube was the avoidance of all sluices, the management of which natives do not comprehend and cannot repair. Plugs answer the present object equally well, and, what is better still, any native understands their object and use. These plugs (u, u, u, u) have been carried to the very bottom of the filter almost, to take advantage, in seasons of peculiar drought, of every drop of available water. In cases of emergency, I have also provided for tubular orifices (p, p, p, p), to communicate direct with the reservoir, and through which unfiltered water can be let into the tube when required. The discharge through these tubular orifices (p, p, or u, u) would be, at depths of 2, 4, and 6 feet respectively, 1·80, 2·55, and 3·12 cubic feet of water per second. See Appendix, lettered D.

54. There may be some objection raised, and with reason too, of the difficulty of clearing out and renewing such a filter; it will, however, last some years; and in seasons of drought, at the close of the hot weather, when the water in the tank is low, the sand might



be partially removed and renewed. Supposing even that it does not completely answer its purpose, of which I have no doubt,—it is the difficulty of renewing it which I consider objectionable,—but little extra cost has been incurred; it is, after all, only the filling in with sand, &c. The construction of a filter is a work that can be executed at any time hereafter; and supposing the masonry aqueduct to be adopted, I doubt whether the attrition of the water against its sides will not be sufficient, and that a filter will be required at all; at any rate, it is a portion of the work which I do not feel inclined, at present, to incur any expense in undertaking.

55. The gangway is the passage across from the embankment to the inlet tower. It is formed of two trusses, on Horne's patent principle; one of the simplest description of wooden bridge yet invented, and at present much adopted, both in Canada West and in the United States, for road and railroad bridges. The total length of the gangway is 180 feet, with a clear breadth of passage of  $5\frac{1}{4}$  feet, supported at one end by the inlet tower, at the other by a pier built in the embankment, and in the centre by a high pier; this gives two clear spaces of  $84\frac{1}{2}$  feet each, the pier in the centre being 4 feet thick at top. The trusses are composed of top and bottom chords, with diagonal bracing between the lower chords. Between the upper and lower timbers of each truss there are main and counter braces, abutting on cast-iron brace-blocks, with iron suspension rods between. The planking is  $3\frac{1}{2}$  inches thick, laid across the two trusses; there are no joists.

56. In order to compare the cost of conveying the water from the main to the distribution reservoir in the Camp, Plan No. 8 contains longitudinal sections for both an iron pipe and masonry aqueduct. The total length of the former is 27,343 feet = 5 m. 1 fur. 94 $\frac{1}{3}$  yds.; of the latter, 41,116 feet = 7 m. 6 fur. 65 $\frac{1}{3}$  yds., the pipe being shorter than the aqueduct by 2 m. 4 fur. 191 yds., the measurements commencing from the starting point of either, the centre of the inlet tower, and ending at the Camp distribution reservoir, marked A in Plans Nos. 1 and 8. The course of both is the same for a distance of 11,478 feet = 2 m. 1 fur. 86 yds., from the main reservoir to the middle of the Duncowree Valley; the iron pipe from this point taking an almost direct course towards the Camp, while the aqueduct neces-

sarily follows the sinuosities of the hills, to avoid the heavy work which a more direct course would entail, and which does not in the same manner affect the line of the pipe.

57. I will now describe the course of each of these modes of conveyance separately, commencing with the

Description of the course  
of the iron pipe.

iron pipe. As before observed, the pipe and aqueduct maintain the same line for a distance of 11,478 feet = 2 m. 1 fur. 86 yds.; from the centre of the inlet tower, 9 feet below the bed of the Nullah, it runs with a slope of a quarter of an inch to 100 feet, for a length of  $4,729\frac{1}{2}$  feet, to the head of the little plateau dividing the Kartriz and Ambeygaum valleys. At this point the tunnel commences, along which the pipe is laid, from the bottom of a masonry shaft 4 feet square, sunk 61 feet below the surface of the ground. From this last shaft the pipe is laid for a distance of 2,570 feet, at an inclination of 0.84 foot to 100 feet, to a chambered shaft, constructed over a very promising spring (No. 3, Plan No. 8), and sunk 21 feet below the surface of the ground. This shaft is divided into two compartments, the water from the pipe being discharged into one, and let off into the other by means of plugs in the division wall. From the base of the shaft No. 3 the pipe leaves, for a distance of  $3,255\frac{1}{2}$  feet, at a slope of 1.59 to 100 feet; and for another 594 feet, at a slope of 3.72 to 100 feet; it then rises and falls at various inclinations noted on the Plan for the remainder of its length, a distance of 13,422.5 feet, until it reaches the Camp distribution reservoir. The head of water from the bottom of the shaft No. 3 (in Plan No. 8) is 31.5 feet, which is considered ample to overcome the different rises in its length. There is no necessity, in the whole length of the pipe, for any aqueducts or other works, beyond the mere trench in which it is laid.

58. The masonry aqueduct leaves the centre of the inlet tower at 9 feet below the bed of the Nullah, being con-

Description of the course  
of the masonry aqueduct.

connected with the iron tube by means of a masonry chamber, and runs with an inclination of a quarter of an inch to 100 feet for a distance of  $4,729\frac{1}{2}$  feet, to the entrance of the tunnel, which leaves the bottom of a masonry shaft 4 feet square, sunk 61 feet below the surface. It then proceeds along the tunnel level, for a distance of  $2,781\frac{1}{2}$  feet, to a similar masonry shaft, sunk  $65\frac{3}{4}$  feet, at the head of the Duncowree Valley.

On quitting the tunnel it proceeds with an inclination of 0·84 foot to 100 feet for a distance of 2,570 feet. This portion is divided into two falls by two chambered shafts (Plan No. 8, Nos. 3 and 4), respectively 21 and 31 feet deep below the surface. The water is received into one compartment of the shaft, and discharged into the other by means of plugs in the division wall (see details in Plan No. 7). No. 3 shaft is that covering the spring, allusion to which was before made in the description of the line of iron pipe. It then again falls with an inclination of 1·81 feet to 100, for a further length of 1,397 feet, the distance being divided into two falls by chambered shafts Nos. 1 and 2 (Plan 8, details Plan 7), sunk respectively 11 and 19 $\frac{3}{4}$  feet below the surface of the ground. From the last shaft (No. 1) to the camp distribution reservoir is a distance of 29,638 feet, over which the aqueduct is carried at a uniform slope of a quarter of an inch to 100 feet, being provided with air-shafts at every 500 feet. Throughout this last portion of its length, the only work which will be required is, raising it about 6 feet high to a length of above 1,200 feet, over a hollow portion of ground not far from the Camp distribution reservoir.

59. The section of the aqueduct is the same throughout, except for that portion between shafts Nos. 1 and 5, a distance of 3,967 feet, which, owing to the unavoidable slope, it has been considered advisable to make of a longer and stronger section; and for the portion passing under the embankment, the head is arched instead of flat. The tunnel along which the water runs, being a distance of 2,781 $\frac{1}{2}$  feet, is also of a different section. The details of all which are plainly shown in Plan No. 7.

60. The Appendix, lettered D, contains four different calculations for finding the diameter of the pipe, the least being calculated at 10·64, and the greatest at 13 inches. The mean of the whole is 11·5 inches, and allowing 1-6th of the diameter so calculated, to be increased to meet loss of head, apart from that of friction, which I believe to be usual in practice, would make the diameter of the pipe 13·41 inches. Thirteen inches would, I therefore think, be a safe size to allow for.

61. Under the letter above referred to in the Appendix will also be found five different formulæ, with the answers attached, for the purpose of ascer-

Area of the aqueduct.

taining the area of the aqueduct. The least side is 9·94 inches, and the greatest 13·32 inches. The mean of the five is 11 inches, or 121 square inches. I have therefore given the aqueduct an area of 270 inches, a little more than double that of the calculations, being 15 inches high by 18 inches broad, interior measurement. This, I think, will be found necessary; and were it not for the increased outlay, I should feel much inclined to make it of such a height and breadth that a boy could enter and be able to clean it out when required. This however, would considerably enhance the first outlay; constructed of the present size, when requiring to be cleaned, it must be opened out in places.

62. The water from the pipe or masonry aqueduct, as generally described in paragraph 34, will be led to a distribution reservoir, proposed to be excavated in a vacant piece of ground in front of the solitary cells, the difference of level between which and the bed of the Ambeygaum Nullah, where the inlet tower is to be constructed, is 80·25 feet. This reservoir will contain either one or two days' supply. Plans 6 and 7 show the details of both reservoirs. The point marked A on Plans Nos. 1 and 8, or S on Plan No. 9, is almost the highest point in Cantonment, being 224·5 feet above the top of the Jamsetjee Bund; so that, from a reservoir situated on this ground, there is not an inhabited portion of the Camp which cannot be supplied with water by gravitation, besides giving a considerable head for the flushing of sewers and drains.

63. From paragraph 37 it will be seen, that one day's supply is 821,917 gallons, or 131,929 cubic feet, calculating for the supply of the reservoir in round numbers at three hundred million gallons; but, taking forty thousand\* as the population at twenty gallons each per day, for two days the contents of such a work would amount to 256,821 cubic feet, or for one day to 128,410 cubic feet; and, if storage room be afforded for these quantities, it will, I think, be quite sufficient. By referring to Appendix, lettered E, the dimensions of a distributing reservoir for a two days' supply will be 201 long  $\times$  130 broad  $\times$  7 deep; and for one day's supply 170 long  $\times$  130 broad  $\times$  7 deep. The larger reservoir I have divided into two parts by a central wall, in order that one may be cleaned out while the other is in use, and as always furnishing a sufficient supply for flushing sewers

and drains. In the smaller reservoir there is no division wall. In the larger the orifices and plugs which supply the two halves are quite distinct, so that either of the halves can be filled, while the other is being cleaned out. The general plan of both reservoirs is rectangular, with a high wall surrounding them. The water from the supply-pipe, or masonry aqueduct, is conveyed into the cistern C (Plans 6 and 7), and from the cistern is again discharged into the reservoir. From this reservoir it is received into another reservoir (N) on the opposite side, from which last the distribution pipes of the Camp are furnished. In the line of the steps of both cisterns, so as to be easily accessible, orifices are made in the cistern walls at one foot central distance apart, with plugs on both sides. These orifices are 6 inches in diameter, and the discharge per second, at depths of 2, 4, and 6 feet, will be 1.38, 1.95, and 2.39 cubic feet respectively. (See Appendix, lettered D.)

64. From the distribution reservoir above described, a series of iron pipes will convey the water to the different parts of the Cantonment, with an iron stand-pipe and stop-cock at each cistern; the pipes being always charged with water. The cisterns are so placed as to be most conveniently situated for the neighbourhood they are intended to supply; but for each hospital (except the Staff hospital, which is between the cistern and the N. I. Regiment Hospital, and Sapper and Miner Lines) one of the smaller description of cisterns 15 broad  $\times$  10 long  $\times$  8 deep, containing 1,200 gallons, is placed in the compound. There are three principal branches of pipes, one for supplying the Horse Artillery Lines, one for the New Wanowree Barracks, Native Infantry Regiments, and Ghoreporee Barracks, and another for the supply of the Bazar, Commissariat, Sappers and Miners, and Officers' Lines. A branch also runs to the Malcolm Tank in the Bazar, which is the only reservoir in a fit state ready at hand, that I have been able to avail myself of, to fill from the distribution reservoir.

65. By a reference to the Appendix, lettered F, it will be seen that the numbers and capacities of the cisterns have been apportioned, as nearly as practicable, to the wants of each locality. In all, thirty-six cisterns will be required, twenty-four of the larger sort, 25  $\times$  18  $\times$  8 feet, and of the smaller twelve, 15  $\times$  10  $\times$  8 feet, each containing 2,000 and 1,200 cubic feet respectively. The capa-

cities of these cisterns, with that of the Malcolm Tank, give 1,21,666 cubic feet, which is sufficiently near to the quantity required for all practical purposes. The cisterns are supposed to be filled daily from the hydrant which is attached to each, or oftener, if necessary, by one of a regular establishment in whose charge the works will remain.

66. The total length of the pipes required for the Camp distribution is entered in the Appendix, lettered G, and amounts to 8 miles, 1,643 yards, 2 feet, the first half of which should be 5-inch, and the latter half 4-inch pipes. Plan No. 9 shows the proposed distribution in detail, in which are entered the various heights of the different localities above the Jamsetjee Bund.

67. The amounts of the estimates of the various works for supplying the Camp of Poona with water, from the Ambeygaum Valley, are as follows :—

|   | Rupees.  |
|---|----------|
| The embankment.....   | 1,52,064 |
| The waste weir .....  | 10,517   |
| The artificial cut to carry off the first floods ....           | 24,651   |
| The inlet tower .....   | 12,172   |
| The gangway .....   | 9,082    |
| The masonry aqueduct and tunnel .....                           | 1,14,969 |
| The 13-inch iron conduit pipe and tunnel .....                  | 1,85,434 |
| The distribution reservoir, to contain a two days' supply ..... | 36,834   |
| The distribution reservoir, to contain one day's supply .....   | 22,599   |
| The Camp distribution .....                                     | 1,03,409 |

Of which I would beg to recommend the following for adoption, as follows :—

|   | Rupees.  |
|---|----------|
| The embankment.....                                   | 1,52,064 |
| The waste weir .....                                  | 10,517   |
| The artificial cut to carry off the first floods .... | 24,651   |
| The inlet tower .....                                 | 12,172   |
| The gangway .....                                     | 9,082    |
| The masonry aqueduct and tunnel: .....                | 1,14,969 |

|  | Rupees.         |
|--|-----------------|
| The distribution reservoir, to contain one day's<br>supply ..... | 22,599          |
| The Camp distribution .....                                      | 1,03,409        |
| Total. . .   | <u>4,49,463</u> |

Amounting to Rupees four lacs, forty-nine thousand, four hundred and sixty-three.

68. The Establishment, as per margin, was placed at my disposal by the Chief Engineer of Public Works for the surveys and sections required for this project, and I have much pleasure in acknowledging the valuable assistance which I have received from Surveyor and Builder, Venaik Bhickajee.

Surveyor and Builder,  
Venaik Bhickajee.

Sub-Assistant Surveyor  
and Builder, J. Wainwright.

Probationer Sub-Assistant  
Surveyor and Builder, Mun-  
cherjee Cowasjee.

(Signed) PHILIP L. HART,  
Captain Engineers, on Special Duty.

*Poona, 23rd October, 1857.*

# APPENDIX.

## A.

No. 515 of 1857.

From the ACTING DEPUTY ASSIST. QUARTER MASTER GENERAL, P.D.A.  
To Captain P. L. HART, Engineers, on Special Duty, Poona.

*Acting Deputy Assist. Quarter Master General's Office, P.D.A.  
Poona, 24th February, 1857.*

SIR,—In acknowledging the receipt of your letters Nos. 12 and 19, dated the 17th and 23rd instant respectively, I have the honour to annex, for your information, an estimate of the whole population of the Cantonment of Poona, supposing it to be fully garrisoned, as follows:—

| CORPS AND DEPARTMENTS.  | Number of   |         |
|---|-------------|---------|
|   | Population. | Cattle. |
| Artillery, two Troops of Horse Artillery, and European Company of Artillery with Light Field Battery .. | 4,674       | 680     |
| Head Quarters Sappers and Miners; three Companies.  | 1,363       | 64      |
| Two European Infantry Regiments .....   | 4,880       | 298     |
| Two Native Infantry Regiments .....   | 4,634       | 278     |
| Ordnance Department .....   | 515         | 32      |
| Bazar, Commissariat Department, Pensioners, &c. ..  | 17,828      | 1,686   |
| Staff; civilians and others unconnected with Regiments, non-residents .....                             | 600         | 150     |
| Total....   | 34,494      | 3,188   |
| Population .....  | 34,494      |         |
| Cattle .....  | 3,188       |         |
| Total....   | 37,682      |         |



2. Great care has been taken in framing this Return, and it is believed it will prove correct in all particulars.

I have, &c.,

(Signed) J. C. COLEY, Captain,  
Acting Deputy Assist. Quarter Master General, P.D.A.

(True copy)

PHILIP L. HART,  
Captain Engineers, on Special Duty.

## B.

*Fall of Rain in Poona, for the last Twelve Years, extending from the Year 1845 to the Year 1856, gauged at the Staff and Civil Hospitals.*

|                 | 1845. |       | 1846. |       | 1847.  |       | 1848. |       | 1849. |       | 1850.  |       | 1851. |       | 1852. |       | 1853. |       | 1854.  |       | 1855.  |       | 1856. |       |
|-----------------|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|-------|-------|
|                 | In.   | Cents | In.   | Cents | In.    | Cents | In.   | Cents | In.   | Cents | In.    | Cents | In.   | Cents | In.   | Cents | In.   | Cents | In.    | Cents | In.    | Cents | In.   | Cents |
| January .....   | ..    | ..    | ..    | ..    | ..     | ..    | ..    | 28    | ..    | ..    | ..     | ..    | ..    | ..    | ..    | ..    | ..    | ..    | ..     | ..    | ..     | ..    | ..    |       |
| February .....  | ..    | ..    | ..    | ..    | ..     | ..    | ..    | ..    | ..    | ..    | ..     | ..    | ..    | ..    | ..    | ..    | ..    | ..    | ..     | ..    | ..     | ..    | ..    |       |
| March .....     | ..    | ..    | ..    | 24    | ..     | ..    | ..    | ..    | ..    | ..    | ..     | ..    | ..    | ..    | 34    | ..    | ..    | ..    | ..     | ..    | ..     | ..    | ..    |       |
| April .....     | ..    | ..    | ..    | 4 4½  | ..     | ..    | ..    | ..    | ..    | ..    | 66½    | ..    | ..    | ..    | ..    | ..    | ..    | ..    | ..     | ..    | ..     | ..    | ..    |       |
| May .....       | 2     | 21    | 1     | 27½   | 2 51   | ..    | 2 78  | ..    | ..    | 40½   | ..     | ..    | ..    | ..    | ..    | 18    | 2 27  | ..    | ..     | 51½   | ..     | 89    | ..    |       |
| June .....      | 3     | 12    | 8     | 78½   | 2 78½  | ..    | 1 30½ | ..    | 7 95½ | 3 39  | 1 48   | ..    | 7 11  | 16 22 | 7 11  | 16 22 | 16 22 | ..    | ..     | 51    | 5 28   | 1 33  | 2 36  |       |
| July .....      | 1     | 11    | 5     | 85    | 2 71   | ..    | 4 16½ | ..    | 6 42½ | 8 15½ | 9 18   | ..    | 6 16  | 11 22 | 6 16  | 11 22 | 11 22 | ..    | ..     | 8 92  | 9 46   | 5 28  | 1 38  |       |
| August .....    | 1     | 66½   | 1     | 91    | 2 11   | ..    | 1 1   | ..    | 19 3  | 1 11  | 1 61   | ..    | 8 11  | 4 5   | 8 11  | 4 5   | 4 5   | ..    | ..     | 1 70  | 1 73½  | 2 76  | 8 46  |       |
| September ..... | 5     | 51½   | 1     | 46    | ..     | ..    | 1 90  | 1 12½ | 1 12½ | ..    | 1 1    | ..    | 5 12  | 1 20  | 5 12  | 1 20  | 1 20  | ..    | ..     | 9 91  | 3 54   | 2 80  | 1 42  |       |
| October .....   | 1     | 13    | 4     | 73    | 87½    | ..    | 2 13  | 2 46  | 5 55  | ..    | 9      | ..    | 2 70  | ..    | 2 70  | ..    | ..    | ..    | ..     | 8 96  | 12 3   | 1 42  | ..    |       |
| November .....  | ..    | ..    | 1     | 92    | 5 9    | ..    | 2 21  | 1 79½ | ..    | 11    | 2 21   | ..    | ..    | ..    | ..    | ..    | ..    | ..    | ..     | 1 97  | ..     | ..    | 44    |       |
| December .....  | ..    | ..    | ..    | 23    | ..     | ..    | ..    | ..    | ..    | ..    | 11     | ..    | ..    | ..    | ..    | ..    | ..    | ..    | ..     | ..    | ..     | ..    | ..    |       |
| Total....       | 14    | 78    | 25    | 31½   | 20 73½ | ..    | 15 52 | ..    | 33 78 | ..    | 19 47½ | ..    | 22 19 | ..    | 32 58 | ..    | 37 98 | ..    | 34 10½ | ..    | 34 54½ | ..    | 19 87 |       |

(True Copy)

(Signed) PHILIP L. HART,  
Captain Engineers, on Special Duty.

(Signed) T. B. LARKINS,  
Staff Surgeon.

(Signed) J. KEITH,  
Civil Surgeon.

*Abstract of Twelve Years' Rain-fall at Poona, from 1845 to 1856.*

|             | Inches. | Cents. |
|-------------|---------|--------|
| 1845.. .. . | 14      | 78     |
| 1846.. .. . | 25      | 34½    |
| 1847.. .. . | 20      | 73½    |
| 1848.. .. . | 15      | 52     |
| 1849.. .. . | 33      | 78     |
| 1850.. .. . | 19      | 47½    |
| 1851.. .. . | 22      | 19     |
| 1852.. .. . | 32      | 38     |
| 1853.. .. . | 37      | 98     |
| 1854.. .. . | 34      | 10½    |
| 1855.. .. . | 34      | 54½    |
| 1856.. .. . | 19      | 87     |
| Total....   | 310     | 70½    |

The average rain-fall of twelve years is.....25·89

Least rain-fall was in 1845, amounting to.....14·78

The greatest rain-fall was in 1853, amounting to.....37·98

(Signed)      PHILIP L. HART,  
Captain Engineers, on Special Duty.







# *General Result of the Gauging of these three Sites.*

| Month and Year. | Burra Kondwah Nullah.             | Back of the Upper Karttriz Tank. | Ambeysgaum Nullah.                | General Remarks.  |
|-----------------|-----------------------------------|----------------------------------|-----------------------------------|---|
| 1857.           | Gallons per hour.                 | Gallons per hour.                | Gallons per hour.                 |   |
| March ..        | 1,688.7                           | 357.4                            | 1,430.7                           | <p>From these results it will be seen that the supply of the Great Kondwah Valley is the greatest, which coincides with the opinion formed of it from frequent personal observation. This valley is in general character flat and open, and the bed in the lower portions formed of an alluvial soil resting on a sort of white marl. The rain percolates through this, and finds its way gradually to the lowest part of the valley, to the stream running at the bottom of it. What I intend to observe is, that the water percolates through the soil, not rapidly running off it. Large quantities of water are thus held in suspension, which however show but little on the surface, but which an excavation of moderate depth quickly discovers. There are consequently various springs on its banks, and twenty wells working to supply seventeen Pawn gardens. An excavation to a few feet below the bed of the Nullah on its banks soon reaches water.</p> <p>With respect to the storage capacity of the Upper Karttriz Tank, it cannot, I think, be depended on for a full and constant supply of water. The shallowness of this large expanse does not seem adapted for storage. The evaporation must, I should say, be very rapid. There is doubtless a large supply held in suspension by the deposit, with which I should say the tank was almost 2-3rds filled up. This has only to be tapped, and led out at the back of the Bund, but what the supply would be, thus obtained, it is almost impossible to conjecture.</p> <p>The supply of water to the Ambeysgaum Valley from these gaugings, though less than that of the Great Kondwah Valley, is fully adequate to the supply of a large reservoir. The valley is surrounded by hills on all sides, and, as compared with the latter, has little alluvial soil in its bed, the soil being generally of moorum with a few feet of reddish earth above, except in the lower part of it near the village, where it is proposed to construct the dam. There is consequently little percolation or under-ground drainage, and but few springs, the water rapidly rising, sweeping down like a torrent, and soon running off. There are not more than two or three wells on its banks. With respect to its capabilities for storage and as a catchment basin, it possesses, I think, great natural advantages.</p> |
| April ..        | 1,252.2                           | 171.4                            | 931.4                             |   |
| May ..          | 1,367.2                           | 419.4                            | 1,034.4                           |   |
| June ..         | 1,614.8                           | 255.1                            | 1,121.4                           |   |
|                 | Average 1,480.7 gallons per hour. | Average 300 gallons per hour.    | Average 1,179.4 gallons per hour. |   |

*Note.*—The two days in February have been omitted, as the period is too short to take an average of to be of any use.

(Signed) PHILIP L. HART,  
Captain Engineers, on Special Duty.

*Camp Poona, 23rd October, 1857.*

**D.**

*Calculations to determine the Diameter of the Conduit Pipe, the Masonry Aqueduct, the Discharge through the holes in the Iron Tube of the Inlet Tower, and through the orifices in the sides of the Distributing Reservoir.*

**THE CONDUIT PIPE.**

Total length of the pipe is 27,343 feet = 5 m. 1 fur. 94½ yds.

Total fall is 80 feet.

The discharge is 1·52 cubic feet per second.

|  | Inches. |
|--|---------|
| 1. By Hawksley's formula, the diameter will be . . . . | 11·20   |
| 2. By Beardmire's ditto, ditto . . . .                 | 10·71   |
| 3. By De Prony's ditto, ditto . . . .                  | 13·46   |
| 4. By De Buat's ditto, ditto . . . .                   | 10·64   |

$$(1) \quad d = 1' \cdot \sqrt{\frac{9^2 l}{h}}$$

$$(2) \quad x = 0\cdot235 \sqrt{\frac{9^2 \times l}{h}}$$

$$(3) \quad d = \sqrt{\frac{1\cdot9^3}{(53\cdot58 \times 7854)^2 J}}$$

$$(4) \quad v = \frac{307 (\sqrt{d-0\cdot1})}{\sqrt{s-h} l \sqrt{s+1\cdot6}} - \cdot3 (\sqrt{d-0\cdot1})$$

**THE MASONRY AQUEDUCT.**

Total length of the aqueduct is 41,116 feet = 7 m. 6 fur. 65½ yds.

Total fall is 80 feet.

Discharge 1·52 cubic feet per second.

|   | Inches. |
|---|---------|
| 1. By De Buat's formula, the side of the aqueduct is.                                   | 9·96    |
| 2. By De Prony's formula, ditto .   | 9·94    |
| 3. By formula in Weale's Rudimentary Treatise,<br>the side of the aqueduct is . . . . . | 10·80   |
| 4. By formula in the Aide Mémoire, the side of the<br>aqueduct is . . . . .             | 11·16   |
| 5. By Tardini's formula, the side of the aqueduct is .                                  | 13·32   |



$$(1) \quad v = \frac{307 (\sqrt{d-0.1})}{\sqrt{s-h} l \sqrt{s+1.6}} - 0.3 (\sqrt{d-0.1})$$

$$(2) \quad \frac{S^3}{P} = \frac{1}{\phi} (a Q S + b Q^2)$$

$$(3) \quad S \sqrt{\frac{S}{P}} = \frac{\sqrt{Q^2 + \frac{1}{\phi}}}{(91.441)^2}$$

$$(4) \quad S \sqrt{\frac{S}{C}} = \frac{\sqrt{Q^2 \times \frac{1}{\phi}}}{2736}$$

$$(5) \quad l h \sqrt{h} = \frac{Q \sqrt{\frac{1}{\phi}}}{50}$$

DISCHARGE THROUGH THE HOLES IN THE IRON TUBE  
OF THE INLET TOWER.

$$Q = 5.1086 d^2 T \sqrt{H}.$$

Cubic feet.

The discharge per second at the depth of 2 feet is .. 1.80

Ditto ditto 4 „ .. 2.55

Ditto ditto 6 „ .. 3.12

DISCHARGE THROUGH THE ORIFICES IN THE SIDES OF THE  
DISTRIBUTING RESERVOIR.

$$Q = 4.978 A T \sqrt{H}.$$

Cubic feet.

The discharge per second at the depth of 2 feet is .. 1.38

Ditto ditto 4 „ .. 1.95

Ditto ditto 6 „ .. 2.39

(Signed) PHILIP L. HART,  
Captain Engineers, on Special Duty.

Poona, 23rd October, 1857.

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**E.***Calculations of the Contents of the Distributing Reservoir, to hold One or Two Days' Supply.***RESERVOIR TO HOLD ONE DAY'S SUPPLY.**

Pop. Day Gall.

$$\frac{40,000 \times 2 \times 20}{0.25} = 256,821 \text{ cubic feet} = \text{two days' supply.}$$

$$\frac{256,821}{2} = 128,410 \text{ cubic feet} = \text{one day's supply.}$$

|                                    | Ft. long. | ft. broad.  | ft. deep. | Cubic feet.    |
|------------------------------------|-----------|-------------|-----------|----------------|
| Reservoir 201                      | × 110     | × 7         | =         | 154,770        |
| Deduct,—Two distributing cisterns, |           |             |           |                |
|                                    |           | 2 × 26 × 13 | × 7 =     | 4,732          |
| „ One foot above top water,        |           |             |           |                |
|                                    | 201       | × 110       | × 1 =     | 22,110         |
|                                    |           |             |           | <u>26,842</u>  |
| Cubic feet                         |           |             |           | 127,928        |
| Contents required                  |           |             |           | <u>128,410</u> |
| Less than requirement by           |           |             |           | <u>482</u>     |

**RESERVOIR TO HOLD TWO DAYS' SUPPLY.**

Two days' supply as above, cubic feet 256,821.

|  | Ft. long. | ft. broad.     | ft. deep. | Cubic feet.    |
|--|-----------|----------------|-----------|----------------|
| Reservoir 270                              | × 165     | × 7            | =         | 311,850        |
| Deduct,—Two distributing cisterns as above |           |                |           | 4,732          |
| „ Division wall                            | 165       | × 2            | × 13      |                |
|  |           | = 139 × 7 × 2½ |           | 2,432          |
| „ One foot above top water,                |           |                |           |                |
|  | 270       | × 165          | × 1 =     | 44,550         |
|  |           |                |           | <u>51,714</u>  |
| Cubic feet                                 |           |                |           | 260,136        |
| Contents required                          |           |                |           | <u>256,821</u> |
| In excess of requirement                   |           |                |           | <u>3,315</u>   |

(Signed) PHILIP L. HART,  
Captain Engineers, on Special Duty.

*Poona, October 23rd, 1857.*

**F.***Calculations for the Cisterns of the Camp Distribution.*

|  | Popu-<br>lation. | Cattle      | Total.        | Gallons<br>per day. | Cubic feet<br>per day. |
|--|------------------|-------------|---------------|---------------------|------------------------|
| Two Troops of Horse Artillery, and Euro-<br>pean Company of Artillery, with Light<br>Field Battery ..... | 4,674            | 680         | 5,354         | 107,080             | 17,187.8               |
| Three Companies of Sappers and Miners ..   | 1,363            | 61          | 1,427         | 28,540              | 4,581.5                |
| One European Infantry Regiment .....   | 2,110            | 119         | 2,589         | 51,780              | 8,311.3                |
| Ditto ditto ditto .....  | 2,110            | 119         | 2,589         | 51,780              | 8,311.3                |
| One Native Infantry Regiment .....   | 2,317            | 139         | 2,456         | 49,120              | 7,884.4                |
| Ditto ditto ditto .....  | 2,317            | 139         | 2,456         | 49,120              | 7,884.4                |
| Ordnance Department .....  | 515              | 32          | 547           | 10,910              | 1,756.0                |
| Bazar, Commissariat, Pensioners, &c. ....  | 17,822           | 1,686       | 19,511        | 390,280             | 62,645.2               |
| Staff, Civilians, &c. ....   | 600              | 150         | 750           | 15,000              | 2,407.7                |
| <b>Total ...</b>   | <b>34,191</b>    | <b>3188</b> | <b>37,682</b> | <b>753,640</b>      | <b>120,969.6</b>       |

Population 37,682  $\times$  20 gallons daily = 753,640.

*Number of Cisterns required.*

|  | Require-<br>ments in<br>Cubic Feet<br>per Day. | No. of<br>Cis-<br>terns. | Size of Cisterns.  | Cubical<br>Contents of<br>Cisterns. |
|--|--|--------------------------|--|-------------------------------------|
| Two Troops of Horse Artillery, and Euro-<br>pean Company of Artillery, with Light<br>Field Battery ..... | 17,187   | 4<br>1                   | { 25 $\times$ 18 $\times$ 8<br>15 $\times$ 10 $\times$ 8 }                 | { 14,400<br>1,200 }                 |
| Three Companies of Sappers and Miners ..   | 4,581  | 1<br>1                   | { 25 $\times$ 18 $\times$ 8<br>15 $\times$ 10 $\times$ 8 }                 | { 3,600<br>1,200 }                  |
| One European Infantry Regiment .....   | 8,311  | 2<br>1                   | { 25 $\times$ 18 $\times$ 8<br>15 $\times$ 10 $\times$ 8 }                 | { 7,200<br>1,200 }                  |
| Ditto ditto ditto .....  | 8,311  | 2<br>1                   | { 25 $\times$ 18 $\times$ 8<br>15 $\times$ 10 $\times$ 8 }                 | { 7,200<br>1,200 }                  |
| One Native Infantry Regiment .....   | 7,884  | 2<br>1                   | { 25 $\times$ 18 $\times$ 8<br>15 $\times$ 10 $\times$ 8 }                 | { 7,200<br>1,200 }                  |
| Ditto ditto ditto .....  | 7,884  | 2<br>1                   | { 25 $\times$ 18 $\times$ 8<br>15 $\times$ 10 $\times$ 8 }                 | { 7,200<br>1,200 }                  |
| Ordnance Department .....  | 1,756  | 2                        | 15 $\times$ 10 $\times$ 8  | 2,400                               |
| Bazar, Commissariat, Pensioners, &c. ....  | 62,645   | 11<br>2<br>2             | { 25 $\times$ 18 $\times$ 8<br>15 $\times$ 10 $\times$ 8<br>Malcolm Tanks. | { 39,600<br>2,400<br>20,866 }       |
| Staff, Civilians, &c. ....   | 2,407  | 2                        | 15 $\times$ 10 $\times$ 8  | 2,400                               |
| <b>Total ...</b>   | <b>120,966</b>                                 | <b>36</b>                | <b>....</b>  | <b>121,666</b>                      |

In all, cisterns, thirty-six in number, of the following sizes, will be required :—

|   | Cubic feet. |
|---|-------------|
| Large 24, each $25 \times 18 \times 8 =$ .... | 86,400      |
| Small 12, each $15 \times 10 \times 8 =$ .... | 14,400      |
| Contents of the Malcolm Tanks*.....           | 20,886      |
| Total .....                                   | 121,666     |
| Actual requirements .....                     | 120,966     |
| In excess .....                               | 700         |

(Signed) PHILIP L. HART,  
Captain Engineers, on Special Duty.

Poona, October 23rd, 1857.

### G.

*List of the different Lengths of Piping which will be required for the Camp Distribution, from the Distributing Reservoir to the various Cisterns, as actually chained on the ground.*

|   | Feet. |
|---|-------|
| From Distribution Reservoir to Hospital old European Barracks .....               | 350   |
| From the above to the proposed new Artillery Hospital .....                       | 972   |
| From the above to the proposed new Artillery Patcherry.....                       | 900   |
| From the last to the centre of one of the sides Horse Artillery Horse Lines ..... | 1,500 |

\* Calculation of the contents of the Malcolm Tanks :—

| Depth.                     | Length.         | Width.                                | Cubic feet. |
|----------------------------|-----------------|---------------------------------------|-------------|
| 4·583                      | $\times$ 63·666 | $\times$ 29·75 = .....                | 8,680·493   |
| 4·583                      | $\times$ 63·708 | $\times$ 29·833 = .....               | 8,710·453   |
| 5·833                      | $\times$ 10     | $\times$ No. 2 $\times$ 29·75 = ..... | 3,470·635   |
| Total.....                 |                 |                                       | 20,861·581  |
| By another calculation.... |                 |                                       | 20,866·0    |

|  | Feet. |
|--|-------|
| From the last to the front of Horse Artillery Officers' Lines .....  | 1,180 |
| From proposed new Artillery Patcherry to Horse Artillery Barracks .....                                      | 870   |
| From Hospital old European Barracks to centre of new Wanowree Barracks.....                                  | 1,400 |
| From the last to the front of new Patcherry .....  | 900   |
| From the last to Native Infantry Lines .....   | 3,200 |
| From Native Infantry Lines to Native Infantry Hospital .....   | 700   |
| From Native Infantry Lines to centre of Native Infantry Lines *  | 900   |
| From the last to the flank of Native Infantry Lines .....  | 1,047 |
| From the last to the 'Tent Lascars' Lines .....  | 1,200 |
| From the last to the Hospital Ghoreporec Barracks.   | 2,700 |
| Branch to the front and rear of the Ghoreporec Barracks 1000 + 800 .....                                     | 1,800 |
| From Distribution Reservoir to opposite Compound No. 90 .....  | 1,300 |
| From the last to the Solitary Cells.....   | 2,360 |
| From the last to the Camel Lines 1,930 + 760....   | 2,690 |
| From the Solitary Cells to the Commissariat Compound .....   | 1,400 |
| From the last to corner of Compound No. 54 ....  | 968   |
| From last branch to near the old burying ground..  | 1,100 |
| From the last to the Malcolm Tanks .....   | 1,374 |
| A branch from the above branch 400 + 650 .....   | 1,050 |
| From Compound No. 54 to Compound No. 31....  | 1,460 |
| From ditto to Bazar Guard .....  | 1,200 |
| From Bazar Guard to West Street .....  | 790   |
| From Compound No. 31 to Arsenal Compound ..  | 1,190 |
| Branch from the last to the front of Mr. Partridge's shop .....  | 890   |
| From Arsenal Compound to between Hospital Native Infantry and the Executive Engineer's Office Compound ..... | 1,300 |

|   | Feet.         |
|---|---------------|
| From last to the Sappers and Miners' Lines . . . . .  | 2,420         |
| From Arsenal Compound to the corner of the Gym<br>Khana . . . . .                                 | 1,860         |
| From the last to the Bund Road corners of His Ex-<br>cellency the Commander in Chief's Compound.. | 2,100         |
| From corner of Gym Khana to open space near<br>Compound No. 19 . . . . .                          | 1,000         |
| From Compound No. 19 to the rear of the Revenue<br>Commissioner's Office . . . . .                | 1,100         |
|   | <hr/>         |
| Total length in feet . . . .  | <u>47,171</u> |

Or in miles, yards, and feet . . 8 m. 1,643 yds. 2 ft.

(Signed) PHILIP L. HART,  
Captain Engineers, on Special Duty.

*Poona, October, 1857.*

## POONA DIVISION.—PUBLIC WORKS.

### CIVIL.

ESTIMATE framed by Captain P. L. Hart, of the Engineers, on special duty, of the probable expense of supplying the Poona Cantonment with water from the Ambeygaum Valley. Estimate framed agreeably to instructions contained in the Government Resolution, under Mr. Secretary Hart's Memorandum No. 160, of the 17th January, 1857.

|  | Rupees.  |
|--|----------|
| 1. Embankment .....                                | 1,52,064 |
| 2. Waste weir .....                                | 10,517   |
| 3. Artificial cut to carry off first floods .....  | 24,651   |
| 4. Inlet tower and filter .....                    | 12,172   |
| 5. Gangway .....                                   | 9,082    |
| 6. Masonry aqueduct and tunnel .....               | 1,14,969 |
| 7. Iron conduit pipe and tunnel .....              | 1,85,434 |
| 8. Distribution reservoir, for two days' supply .. | 36,834   |
| 9. Distribution reservoir, for one day's supply .. | 22,599   |
| 10. Camp distribution .....                        | 1,03,409 |

#### GENERAL DESCRIPTION.

The general description of the scheme now submitted is as follows :—

The construction of an earthen dam across the gorge of the valley near the village of Upper Ambeygaum, 1,270½ feet in length, its greatest height above the bed of the stream being 59·86 feet. From the reservoir so formed the water will be led, by either an iron conduit pipe, or masonry aqueduct, whichever may be considered the best and most economical, to the most favourable point for crossing the small plateau of the spur dividing the Kartriz and Ambeygaum valleys. Through this portion a tunnel will be driven 2,781½ feet long, opening at the head of the Duncowree Valley. The course then,

for either pipe or masonry aqueduct, will be down this little valley for some short distance. If by an iron conduit pipe, it will run almost straight to a distributing reservoir, to contain either one or two days' supply, near the solitary cells in the Camp of Poona; if by a masonry aqueduct, before reaching the mouth of the Duncowree Valley, it will branch off, running slightly up the Kartriz Valley, crossing the aqueduct, round under the village of Beebee Warree, and thence following the sinuosities of the hills to the distributing reservoir above mentioned, from which water can be delivered by gravitation to every part of the Cantonment, wherever required. If by a masonry aqueduct, the length will be 7 m. 6 fur. 65 $\frac{1}{3}$  yds.; if by an iron pipe, it will be 5 m. 1 fur. 94 $\frac{1}{3}$  yds., the total fall from the bottom of the main reservoir to the Camp distribution reservoir being 80.25 feet. The distributing reservoir, as above observed, will either contain one or two days' supply, and from it the water will be conveyed, by iron pipes of four and five inches diameter, to cisterns corresponding in number and capacity with the wants of the locality, with a stand-pipe at each cistern, the pipes always remaining charged. Plans Nos. 1 and 8 show these works.

#### EMBANKMENT.

The site occupied by the embankment, the details of which are shown in the Plan No. 2, to be cleared of all loose soil or soft rock, so that it may rest on the solid soil or clay, to the average depth of one foot over the whole surface so occupied; and on approaching the hill sides at each end, the ground to be regularly stepped or leached, in order that these portions may rest on a fair and horizontal base. An excavation for the trench intended to receive the puddle to be taken down to such a depth as will enable the puddle to rest either on solid rock, or on such a permanently secure base as will effectually prevent all leakage of water. The trench will also be stepped into the hill sides, in order that the puddle may have a fair bearing to rest on. The dotted line coloured yellow in Plan No. 2 shows the probable depth that the puddle trench will require to be excavated, and was ascertained from pits sunk at certain distances apart throughout the whole length of the embankment. The trench to be filled in with clay, well watered, in layers of six or eight inches in depth, and each layer to be well worked up with the feet. Particular



care must be taken to ensure its thorough consistency throughout, by always keeping the surface left well watered, so as to obtain a thorough junction with the next layer it may receive ; this must extend throughout the whole puddle wall. It is to be eight feet wide at top, carried up to the summit of the embankment, and increasing in width at the rate of four feet for each ten feet of depth. All stones of more than half a pound weight, or other extraneous matter than good plastic clay, to be rejected, and all lumps and clods to be broken up and pounded, before being worked into the trench. There must be a uniform consistency throughout in this portion of the work, and no joints, seams, or cracks of any sort or description whatever allowed. The puddle wall and embankment to be carried on simultaneously, and no one portion of the puddle allowed to rise above the adjoining portion of the embankment.

The embankment to be twenty feet wide at top, with a slope on the inside of 3 to 1, and on the outside of 2 to 1, formed of the materials to be found close at hand ; the best or most clayey portion to be put in the middle next to the puddle wall on the upstream side, and the least clayey on the outside half of the embankment. All stones exceeding three inches in diameter to be rejected. The embankment to be formed in parallel layers of about nine inches in thickness, inclining from both faces towards the puddle wall at a slope of 1 in 10. Each layer to be well watered, and pounded with wooden rammers, so that it may be thoroughly consolidated, the layers being kept of a uniform thickness throughout. The internal slope, the top, and for a length of ten feet of the external slope of the embankment, to be covered with dry stone pitching set carefully by hand, each stone on its end, two feet in depth, and resting on a bed of quarry shivers and broken stone, nine inches deep. The stones of which the pitching is formed to be of a general uniform thickness throughout, not tailing to a point, but with a fair, but rough, bed throughout the whole depth of two feet, and resting on an end similar to the face ; the interstices to be carefully filled in with stone chippings. The face of this rough stone pitching to have an even and true surface throughout, and not to have that wavy appearance which bad work would denote. The surface to be as even as a well-built rubble masonry wall. A small rubble masonry wall to run along the foot of the internal slope (see Plan No. 2), the top being on a level with

the ground, for the rough stone pitching to abut against. This wall will tend to prevent any uneven settlement of the pitching, and preserve for it a true and even face.

#### THE WASTE WEIR.

A waste weir to be carried round the eastern end of the embankment, as shown in Plans Nos. 3 and 6, by an excavation in the solid ground 841 feet in length, and 100 feet in breadth, communicating with the "artificial cut to carry off the first floods" at its lower end. The side slopes of this channel have been calculated at  $\frac{1}{2}$  to 1, but, as the excavation throughout will most probably be in moorum, so large a slope will not be necessary; a deduction has consequently been made in the estimate of 25 per cent. from the solid contents. At the lower end of the waste weir, a masonry apron, with dwarf walls on each side, is to be built, to prevent the water working a channel for itself between the masonry of the apron and the adjoining soil. The foundation of the apron to be of uncoursed rubble masonry, with a rough slab pavement set on end in lime above it, two feet thick. The cross walls, at the upper and lower end of the apron, to be sunk below the foundation, to prevent the water from undermining it in any way.

#### ARTIFICIAL CUT TO CARRY OFF THE FIRST FLOODS.

The artificial cut is shown in Plans Nos. 3 and 6 in detail. It is to be 7,900 feet in length, with a breadth at base of 40 feet, side slopes calculated at  $\frac{1}{2}$  to 1, but the same deduction to be made, on the account above stated. On leaving the bed of the Ambeygaun Nullah above the dam it runs for a length of 2,739 feet with a fall of 4.92 inches per 100 feet; for 1,615 feet with a fall of 1.85 inch to 100 feet; for 1,842 feet with a fall of 0.81 inch to 100 feet; for 715 feet with a fall of 6.29 inches to 100 feet, joining the stream again behind the embankment with a fall of 6.97 inches to 100 feet, in a length of 987 feet. This cut, crossing the three tributaries of the main stream, will require three small masonry dams to be built at the points of intersection, in addition to one across the main Nullah, at the point the artificial cut leaves it. The foundations of these dams to be carried down to the solid rock, to be built of uncoursed rubble masonry; the breadth of the dam at bottom to be of a thick-

ness equal to the height, and the top to be half the thickness at bottom, all to be built of uncoursed rubble masonry. Openings to be left in each, to enable the clear water to feed the reservoir after the first heavy monsoon muddy floods have passed off. For a further description, see paras. 46 to 49 of the Report accompanying.

#### INLET TOWER AND FILTER.

The details of this work are shown in Plan No. 5. The foundation of the inlet tower to be carried down 13 feet below the bed of the Nullah, or for such a further depth as may be found necessary, until a good foundation or solid rock be reached. On the foundation so excavated, a layer of *bétou* to be laid over the whole extent (33 feet square), two feet deep, and on this a half-spherical invert to be turned of roughly-dressed stones, two feet deep, set in lime in concentric circles, having an inner diameter of 13 feet. The work on the outside of the invert to be brought up in eight circular offsets of one foot in depth, and decreasing half a foot in breadth, of coursed rubble masonry, leaving the foundations at top  $5\frac{1}{2}$  feet thick, on which the walls of the tower rest. Openings to be left in the foundations and walls, as described previously, in para. 53 of the Report accompanying. On this half-spherical invert, the walls of the tower are to be carried up to a height of 60 feet, 5 feet thick at bottom, and  $2\frac{1}{2}$  feet thick at top, of coursed rubble masonry faced with cut-stone on both sides, particular care to be taken in the beds and joints, which are to extend at least one foot into the walls, and to be very close and fine, so as to secure a water-tight junction. At a height of about 15 feet above the foundation of the tower, there is to be a domed floor, set in concentric rings, of cut-stone masonry; the space included between the invert and this domed floor is the filter, the bottom part to be filled with amygdaloid,\* and the upper portion with layers of coarse and fine sand. To communicate with the plugs in the iron tube, a circular staircase of roughly dressed stone, each stone to be well tailed into the walls of the tower, runs from the top of the tower to the domed floor. An iron tube, 3 feet in diameter, passes down the centre of the tower,

\* A Scotch engineer, Mr. Thom, of much experience in works of this nature, found this species of friable trap rock, which abounds in the Deccan, the best substitute for animal charcoal, which is one of the most perfect filtering media.

and through the domed floor, provided at every two feet with spouts six inches in diameter, into which the wooden plugs are inserted for the supply of the tube, and winding spirally round it, to allow of their being easily closed or opened from the steps. A cut-stone cornice runs round the top of the tower, above which the walls are carried up 10 feet high, of coursed rubble masonry, with circular openings on three sides, covered with a teak-wood roof and double tiles. For any further particulars regarding this work, reference is requested to para. 53 of the Report accompanying, in which it is fully described. Ties of iron passing through the walls of the tower may, probably, be required to keep the tube firmly in its position; but, as the water in the upper part of the tower will always retain the same level as that outside, its pressure alone will probably be sufficient for this purpose. This subject is mentioned to show that it has not been lost sight of, though it is not thought necessary to provide for it in the estimate.

#### GANGWAY.

The foundation of the gangway pier, to be taken down to a depth of 10 feet, or such further depth as may be found necessary until a solid foundation is reached (Plans Nos. 2 and 4 show the details of this work), and to be filled in with rubble masonry. The superstructure to be carried up in three offsets of  $19\frac{1}{2}$ , 20, and 17 feet respectively, of coursed rubble masonry, the thicknesses of the pier being respectively 6, 5, and 4 feet, in each division of its height. The pier, or abutment in the embankment, which will not be built until the lower portion has thoroughly consolidated, to be 12 feet in height, with a thickness of 4 feet, of coursed rubble masonry. The trusses of the gangway to be constructed of well-seasoned teak, procured for the most part from Bombay, free from cracks and knots, the Deccan timber not affording the length required. The castings to be clean and sound, and the wrought-iron work executed in a true and workmanlike manner, particularly the cutting of the threads of the screw-bolts and nuts, which are to be sharp and clean, with an even and true bearing for the nuts. All the joints of the wood-work to be close and truly fitted. The tongues between the timbers of the upper and lower chords to be of well-seasoned babool-wood, closely jointed. For further particulars of this work, see the description of it at para. 55 of the Report accompanying.

## MASONRY AQUEDUCT AND TUNNEL.

The total length of the masonry aqueduct, from the inlet tower to the distribution reservoir in the Camp, is 41,116 feet, or 7 miles 6 furlongs 65 $\frac{1}{2}$  yards, divided into the following portions (Plans Nos. 7 and 8 contain the details of this work) :—

|   | Length.                      | Inclination.                        |
|---|------------------------------|-------------------------------------|
| From the inlet tower to the mouth of the tunnel on the Ambeygaum side, the general section of the aqueduct is that shown at Fig. 1, except for a short distance where the aqueduct passes under the embankment (335 feet in length). Fig. 2 shows this section : it is precisely similar to that above, with the exception of the top being arched over, to prevent the weight of the embankment from crushing it in, which might probably occur with a section like Fig. 1 . . . . . | Feet.<br>4,729 $\frac{1}{2}$ | Inch. Feet.<br>$\frac{1}{4}$ to 100 |
| The section of the tunnel is similar to Fig. 3, of sufficient size to allow of two men driving it ; where the tunnel joins the entrance shafts Nos. 5 and 8 (of Plans 7 and 8) a small extent of the length at the junction will probably require revetting, as shown in Fig. 4. . . .  | 2,781 $\frac{1}{2}$          | Level.                              |
| Fig. 5 is the section of the aqueduct between chambered shafts Nos. 1 and 5 of Plan No. 8, viz. that portion of it which descends the Duncowree Valley. .   | 2,570                        | Feet. Feet.<br>0.84 to 100          |
| On account of the considerable fall, and the probability that a large quantity of water can be stored in this part of the aqueduct during the hot weather, it has been made of a larger and stronger section. It is highly probable that there will be no necessity, in many  |                              |                                     |





|   | Length.        | Inclination.           |                 |
|---|----------------|------------------------|-----------------|
| parts, for either a masonry sill or side walls, as the excavation will be in rock ; it has, however, been considered best to provide for it in the estimate. The same remark will apply to the aqueduct, having sections similar to Figs. 1 and 2.                  | Fect.<br>1,397 | Fect.<br>1·81          | Fect.<br>to 100 |
| From No. 1 chambered shaft to the distribution reservoir in the Camp, the section is similar to Fig. 1, which is the general section of the aqueduct throughout, it only having been departed from in the places where it has been considered as actually necessary | 29,638         | Inch.<br>$\frac{1}{4}$ | Fect.<br>to 100 |

(Fig. 1.) This part of the aqueduct to be constructed of coursed rubble masonry, with slab-stones set in lime for the sole and top of the aqueduct.

(Fig. 2.) That portion passing under the embankment will be built in a similar manner to the above, with the exception of an arched head instead of a flat one.

(Fig. 3.) The section of the tunnel will be as shown in this figure, excepting those parts adjoining the entrance shafts, marked Nos. 5 and 8 of Plan No. 8, which will be revetted with coursed rubble masonry, for a distance at the junctions of 20 feet (see Fig. 4). The two shafts at the mouths of the tunnel, and the air-shafts, will be built of coursed rubble masonry.

(Fig. 5.) This section of the aqueduct will be constructed of coursed rubble masonry, the chambered shafts (Nos. 1, 2, 3, and 4) being of the same construction, but faced with cut-stone on the inside.

The trench for the aqueduct to be half filled in with the soil excavated from it, when that part of the work is finished.

#### IRON CONDUIT PIPE AND TUNNEL.\*

The iron conduit pipe leaves the inlet tower for a length of 4,729½ feet, at a slope of a quarter of an inch to 100 feet to the mouth of the tunnel, through which it is laid level for a length of 2,781½ feet. It then descends at a slope of 0·84 foot to 100 feet, for a distance of



2,570 feet, to the chambered shaft (No. 3) covering the spring, shown in Plans Nos. 7 and 8. The water entering one compartment of the shaft is discharged into the other, from the bottom of which the pipe proceeds, with various rises and falls, to the distribution reservoir in the Camp, the head of water to overcome which is 31 feet. For a further description of this portion of the work, see paras. 56 and 57 of the Report accompanying; Plan No. 7 showing the details, and Plan No. 8 a longitudinal section of the conduit pipe, from the bed of the Nullah at Ambeygaum to the distribution reservoir.

#### DISTRIBUTION RESERVOIRS (TWO AND ONE DAY'S SUPPLY).

Details of these works will be seen in Plans Nos. 6 and 7. The foundations of the retaining walls to be of uncoursed rubble masonry, faced with cut-stone on the inside. The foundation of the surrounding wall of the reservoir to be of the same construction as the above; the superstructure to be built of coursed rubble masonry with a cut-stone coping, and to be furnished with two strong teak-wood plank battened doors. The space between the foundations of these two walls, particularly to the sloping portions on the north side, and the lower parts of the east and west ends, to be filled in with earth in regular layers, well rammed, to prevent leakage. The bed of the reservoir throughout to be paved with cut-stone. In the event of this head of water being made use of for flushing sewers or drains (to be hereafter built throughout the Cantonment), two sluices will be required; they have not been included in the estimate, as they do not properly belong to the water supply of the Camp. For further particulars regarding these works, see paras. 62 and 63 of the Report accompanying, and letters E and F of the Appendix to it.

#### CAMP DISTRIBUTION.

The retaining walls of the cisterns to be built of coursed rubble masonry, with a cut-stone facing on the inside; a parapet wall of cut-stone to surround the cistern at the top. The bottom of the cistern, and the part surrounding the parapet wall at top, to be paved with cut-stone. The iron pipes conveying the water from the distributing reservoir to be of the kind usually denominated socket-pipes; to be perfectly sound, and free from honeycombs or other defects in the casting, with a stand-pipe and stop-cock provided for each cistern. The details of the Camp distribution are shown in Plan No. 9.

## No. 1.—THE EMBANKMENT.

## MEASUREMENTS.

*Stepping the Embankment into the Sides of the Hill.*

| PLAN No. 2.<br>(RIGHT SIDE.) | No. | Length. | Breadth.                          | Depth.               | Solid Feet. |
|------------------------------|-----|---------|-----------------------------------|----------------------|-------------|
| 1st Portion .....            | 1   | 9·5     | $\frac{23\cdot44+20}{2}$          | $\frac{1\cdot25}{2}$ | 128·97      |
| 2nd do. ....                 | 1   | 10      | $\frac{26\cdot85+23\cdot24}{2}$   | $\frac{1\cdot25}{2}$ | 157·15      |
| 3rd do. ....                 | 1   | 10      | $\frac{30\cdot26+26\cdot85}{2}$   | $\frac{1\cdot25}{2}$ | 178·46      |
| 4th do. ....                 | 1   | 10      | $\frac{33\cdot67+30\cdot26}{2}$   | $\frac{1\cdot25}{2}$ | 199·78      |
| 5th do. ....                 | 1   | 10      | $\frac{37\cdot06+33\cdot67}{2}$   | $\frac{1\cdot25}{2}$ | 221·09      |
| 6th do. ....                 | 1   | 10      | $\frac{40\cdot40+37\cdot06}{2}$   | $\frac{1\cdot25}{2}$ | 242·40      |
| 7th do. ....                 | 1   | 10      | $\frac{43\cdot0+40\cdot40}{2}$    | $\frac{1\cdot25}{2}$ | 263·71      |
| 8th do. ....                 | 1   | 10      | $\frac{58\cdot91+43\cdot0}{2}$    | $\frac{1\cdot07}{2}$ | 429·23      |
| 9th do. ....                 | 1   | 10      | $\frac{75\cdot02+58\cdot91}{2}$   | $\frac{1\cdot07}{2}$ | 554·56      |
| 10th do. ....                | 1   | 10      | $\frac{88\cdot05+75\cdot02}{2}$   | $\frac{1\cdot07}{2}$ | 679·98      |
| 11th do. ....                | 1   | 10      | $\frac{98\cdot06+88\cdot05}{2}$   | $\frac{2}{2}$        | 939·55      |
| 12th do. ....                | 1   | 10      | $\frac{108\cdot07+98\cdot06}{2}$  | $\frac{3}{2}$        | 1,559·47    |
| 13th do. ....                | 1   | 10      | $\frac{118\cdot08+108\cdot07}{2}$ | $\frac{3}{2}$        | 1,709·62    |
| 14th do. ....                | 1   | 10      | $\frac{135\cdot15+118\cdot08}{2}$ | $\frac{5}{2}$        | 1,905·97    |
| 15th do. ....                | 1   | 10      | $\frac{155\cdot15+135\cdot15}{2}$ | $\frac{5}{2}$        | 3,645·00    |
| 16th do. ....                | 1   | 10      | $\frac{156\cdot45+168\cdot52}{2}$ | $\frac{3}{2}$        | 2,437·27    |
| 17th do. ....                | 1   | 10      | $\frac{168\cdot52+171\cdot36}{2}$ | $\frac{1}{2}$        | 849·70      |
| 18th do. ....                | 1   | 10      | $\frac{171\cdot36+181\cdot78}{2}$ | $\frac{2}{2}$        | 1,765·70    |
| 19th do. ....                | 1   | 10      | $\frac{181\cdot78+199\cdot75}{2}$ | $\frac{4}{2}$        | 3,815·30    |
| (LEFT SIDE.)                 |     |         |                                   |                      |             |
| 1st Portion .....            | 1   | 9·25    | $\frac{20\cdot0+33\cdot44}{2}$    | $\frac{1\cdot5}{2}$  | 185·37      |
| 2nd do. ....                 | 1   | 10      | $\frac{33\cdot44+46\cdot88}{2}$   | $\frac{2\cdot5}{2}$  | 502·00      |
| 3rd do. ....                 | 1   | 10      | $\frac{46\cdot88+60\cdot32}{2}$   | $\frac{2\cdot5}{2}$  | 670·00      |

*Stepping the Embankment into the Sides of the Hill—(continued).*

|                  | No. | Length. | Breadth.                          | Depth.              | Solid Feet. |
|------------------|-----|---------|-----------------------------------|---------------------|-------------|
| 4th Portion..... | 1   | 10      | $\frac{60\cdot32+73\cdot76}{2}$   | $\frac{3\cdot5}{2}$ | 1,173·20    |
| 5th do. ....     | 1   | 10      | $\frac{73\cdot76+87\cdot20}{2}$   | $\frac{3\cdot5}{2}$ | 1,408·40    |
| 6th do. ....     | 1   | 10      | $\frac{87\cdot20+100\cdot65}{2}$  | $\frac{3\cdot5}{2}$ | 1,643·68    |
| 7th do. ....     | 1   | 10      | $\frac{100\cdot65+122\cdot52}{2}$ | $\frac{4}{2}$       | 2,231·70    |
| 8th do. ....     | 1   | 10      | $\frac{122\cdot52+144\cdot30}{2}$ | $\frac{4\cdot5}{2}$ | 3,002·73    |
| 9th do. ....     | 1   | 10      | $\frac{144\cdot30+160\cdot26}{2}$ | $\frac{4\cdot5}{2}$ | 3,494·81    |
| 10th do. ....    | 1   | 10      | $\frac{160\cdot26+188\cdot13}{2}$ | $\frac{4\cdot5}{2}$ | 3,986·88    |
| 11th do. ....    | 1   | 10      | $\frac{188\cdot13+210\cdot00}{2}$ | $\frac{3\cdot5}{2}$ | 3,483·63    |
| 12th do. ....    | 1   | 10      | $\frac{210\cdot00+219\cdot85}{2}$ | $\frac{1\cdot5}{2}$ | 1,611·93    |
| 13th do. ....    | 1   | 10      | $\frac{219\cdot85+220\cdot70}{2}$ | $\frac{0\cdot5}{2}$ | 561·93      |
| 14th do. ....    | 1   | 10      | $\frac{220\cdot70+230\cdot55}{2}$ | $\frac{2}{2}$       | 2,346·25    |
| 15th do. ....    | 1   | 10      | $\frac{230\cdot55+240\cdot40}{2}$ | $\frac{2\cdot5}{2}$ | 3,055·93    |
| 16th do. ....    | 1   | 10      | $\frac{240\cdot40+250\cdot25}{2}$ | $\frac{2}{2}$       | 2,543·25    |

Total solid feet stepping the embankment in moorum . . 53,584·60

*Stripping Loose Earth from the Bed of the Embankment.*

| PLAN No. 2.<br>(FROM THE LEFT.) |   | No.  | Length.                           | Breadth. | Depth.    | Solid Feet. |
|---------------------------------|---|------|-----------------------------------|----------|-----------|-------------|
| 1st Portion.....                | 1 | 58·5 | $\frac{250\cdot25+278\cdot90}{2}$ | 1        | 15,740·88 |             |
| 2nd do. ....                    | 1 | 116  | $\frac{278\cdot00+335\cdot80}{2}$ | 1        | 35,652·60 |             |
| 3rd do. ....                    | 1 | 6    | $\frac{335\cdot80+311\cdot25}{2}$ | 1        | 1,941·15  |             |
| 4th do. ....                    | 1 | 18·5 | $\frac{311\cdot25+319\cdot30}{2}$ | 1        | 5,832·58  |             |
| 5th do. ....                    | 1 | 32   | $\frac{319\cdot30+314\cdot05}{2}$ | 1        | 10,148·00 |             |
| 6th do. ....                    | 1 | 14   | $\frac{314\cdot05+295\cdot05}{2}$ | 1        | 4,276·30  |             |
| 7th do. ....                    | 1 | 40   | $\frac{295\cdot05+302\cdot45}{2}$ | 1        | 11,768·00 |             |
| 8th do. ....                    | 1 | 68·5 | $\frac{302\cdot45+376\cdot25}{2}$ | 1        | 19,477·97 |             |

*Stripping Loose Earth from the Bed of the Embankment—(continued).*

|   | No. | Length. | Breadth.                    | Depth. | Solid Feet. |
|---|-----|---------|-----------------------------|--------|-------------|
| 9th Portion . . . . .   | 1   | 35.5    | $\frac{270.25 + 278.05}{2}$ | 1      | 9,838.82    |
| 10th do. . . . .  | 1   | 47.5    | $\frac{278.05 + 286.65}{2}$ | 1      | 13,411.62   |
| 11th do. . . . .  | 1   | 53.5    | $\frac{286.65 + 295.15}{2}$ | 1      | 15,563.15   |
| 12th do. . . . .  | 1   | 46.5    | $\frac{295.15 + 304.75}{2}$ | 1      | 13,695.17   |
| 13th do. . . . .  | 1   | 11      | $\frac{304.75 + 306.00}{2}$ | 1      | 3,307.42    |
| 14th do. . . . .  | 1   | 24      | $\frac{306.00 + 289.55}{2}$ | 1      | 7,153.80    |
| 15th do. . . . .  | 1   | 88.5    | $\frac{289.55 + 270.85}{2}$ | 1      | 25,195.95   |
| 16th do. . . . .  | 1   | 9       | $\frac{270.85 + 266.45}{2}$ | 1      | 2,458.35    |
| 17th do. . . . .  | 1   | 72.0    | $\frac{266.45 + 270.85}{2}$ | 1      | 18,946.80   |
| 18th do. . . . .  | 1   | 9.5     | $\frac{270.85 + 249.40}{2}$ | 1      | 2,390.43    |
| 19th do. . . . .  | 1   | 114     | $\frac{249.40 + 210.85}{2}$ | 1      | 26,405.25   |
| 20th do. . . . .  | 1   | 57      | $\frac{210.85 + 190.75}{2}$ | 1      | 11,958.60   |
| Total solid feet stripping earth from the bed of the embankment . . . . . |     |         |                             |        | 255,162.84  |

*Excavating Foundation for the Dwarf Wall for the Pitching to abut against.*

|   | No. | Length.  | Breadth. | Depth. | Solid Feet. |
|---|-----|----------|----------|--------|-------------|
| Dwarf wall at the foot of the embankment, upstream side . . . . .                                   | 1   | 1,377.38 | 3.66     | 4      | 20,164.84   |
| Total solid feet of excavation for dwarf wall at the foot of the embankment, upstream side. . . . . |     |          |          |        | 20,164.84   |

*Excavating Trench to receive the Puddle.*

| PLAN No. 2.<br>(FROM THE LEFT.) |       | No. | Length. | Breadth.                | Depth.                | Solid Feet. |
|---------------------------------|-------|-----|---------|-------------------------|-----------------------|-------------|
| 1st Portion                     | ..... | 1   | 11      | $\frac{8+8.87}{2}$      | $\frac{5.0}{1}$       | 463.92      |
| 2nd do.                         | ..... | 1   | 24      | $\frac{8.87+11.54}{2}$  | $\frac{5.0}{1}$       | 1,224.60    |
| 3rd do.                         | ..... | 1   | 25.5    | $\frac{11.54+14.45}{2}$ | $\frac{5.0}{1}$       | 1,656.86    |
| 4th do.                         | ..... | 1   | 12.5    | $\frac{14.45+16.08}{2}$ | $\frac{5.0}{1}$       | 972.81      |
| 5th do.                         | ..... | 1   | 22      | $\frac{16.08+20.74}{2}$ | $\frac{5.0}{1}$       | 2,058.10    |
| 6th do.                         | ..... | 1   | 18.5    | $\frac{20.74+23.67}{2}$ | $\frac{5.5+5}{2}$     | 2,156.66    |
| 7th do.                         | ..... | 1   | 17.25   | $\frac{23.67+24.16}{2}$ | $\frac{5+7}{2}$       | 2,578.34    |
| 8th do.                         | ..... | 1   | 28.5    | $\frac{24.16+27.14}{2}$ | $\frac{7.0}{1}$       | 5,117.17    |
| 9th do.                         | ..... | 1   | 58.5    | $\frac{27.14+28.71}{2}$ | $\frac{7+0.5}{2}$     | 13,477.30   |
| 10th do.                        | ..... | 1   | 116     | $\frac{28.71+28.86}{2}$ | $\frac{0.5+12.5}{2}$  | 36,729.66   |
| 11th do.                        | ..... | 1   | 6       | $\frac{28.86+31.30}{2}$ | $\frac{12.5+10.5}{2}$ | 2,075.52    |
| 12th do.                        | ..... | 1   | 18.5    | $\frac{31.30+31.04}{2}$ | $\frac{10.5+0.5}{2}$  | 5,849.70    |
| 13th do.                        | ..... | 1   | 32      | $\frac{31.04+31.59}{2}$ | $\frac{9.5+11}{2}$    | 10,418.92   |
| 14th do.                        | ..... | 1   | 14      | $\frac{31.59+30.07}{2}$ | $\frac{11+14.5}{2}$   | 5,503.15    |
| 15th do.                        | ..... | 1   | 40      | $\frac{30.07+29.79}{2}$ | $\frac{14.5+15}{2}$   | 17,658.70   |
| 16th do.                        | ..... | 1   | 68.5    | $\frac{29.79+28.50}{2}$ | $\frac{15+10}{2}$     | 33,939.35   |
| 17th do.                        | ..... | 1   | 35.5    | $\frac{28.50+28.64}{2}$ | $\frac{19+18.5}{2}$   | 19,016.90   |
| 18th do.                        | ..... | 1   | 47.5    | $\frac{28.64+29.33}{2}$ | $\frac{18.5+17.5}{2}$ | 24,782.17   |
| 19th do.                        | ..... | 1   | 53.5    | $\frac{29.33+30.01}{2}$ | $\frac{17.5+15}{2}$   | 25,794.35   |
| 20th do.                        | ..... | 1   | 46.5    | $\frac{30.01+30.98}{2}$ | $\frac{15+15}{2}$     | 20,921.51   |
| 21st do.                        | ..... | 1   | 11      | $\frac{30.98+30.92}{2}$ | $\frac{15+12.5}{2}$   | 4,605.56    |
| 22nd do.                        | ..... | 1   | 24      | $\frac{30.92+29.58}{2}$ | $\frac{12.5+16}{2}$   | 10,342.08   |
| 23rd do.                        | ..... | 1   | 88.5    | $\frac{29.58+28.78}{2}$ | $\frac{16+14.5}{2}$   | 39,368.56   |
| 24th do.                        | ..... | 1   | 9       | $\frac{28.78+27.71}{2}$ | $\frac{14.5+16}{2}$   | 3,876.62    |
| 25th do.                        | ..... | 1   | 72      | $\frac{27.71+27.18}{2}$ | $\frac{16+14.5}{2}$   | 30,134.61   |
| 26th do.                        | ..... | 1   | 9.5     | $\frac{27.18+26.87}{2}$ | $\frac{14.5+17}{2}$   | 3,968.80    |

*Excavating Trench to receive the Puddle—(continued).*

|   | No. | Length. | Breadth.                  | Depth.                  | Solid Feet. |
|---|-----|---------|---------------------------|-------------------------|-------------|
| 27th Portion.....   | 1   | 114     | $\frac{25\ 87+23\ 98}{2}$ | $\frac{17+11\cdot5}{2}$ | 40,490·66   |
| 28th do. ....   | 1   | 57      | $\frac{23\ 08+22\ 38}{2}$ | $\frac{11\cdot5+10}{2}$ | 14,203·54   |
| 29th do. ....   | 1   | 15      | $\frac{22\ 38+20\ 22}{2}$ | $\frac{10+12}{2}$       | 3,514·50    |
| 30th do. ....   | 1   | 19      | $\frac{20\ 22+19\ 70}{2}$ | $\frac{12+8}{2}$        | 3,798·10    |
| 31st do. ....   | 1   | 20·5    | $\frac{19\ 70+16\ 36}{2}$ | $\frac{8}{1}$           | 2,961·84    |
| 32nd do. ....   | 1   | 34·5    | $\frac{16\ 36+13\ 51}{2}$ | $\frac{8+5\cdot5}{2}$   | 3,477·98    |
| 33rd do. ....   | 1   | 30      | $\frac{13\ 51+11\ 11}{2}$ | $\frac{5\cdot5}{1}$     | 2,031·15    |
| 34th do. ....   | 1   | 71·5    | $\frac{11\ 11+8\ 0}{2}$   | $\frac{5\ 5+7}{2}$      | 4,269·89    |
| Total solid feet excavating trench to receive the puddle,<br>in earth, pebbles, and water ..... |     |         |                           |                         | 3,99,418·50 |

*Building Dwarf Wall for Pitching to abut against.*

|  | No. | Length.  | Breadth.            | Depth. | Solid Feet. |
|--|-----|----------|---------------------|--------|-------------|
| Footing.....   | 1   | 1,377·38 | 3·66                | 1      | 5,041·21    |
| Wall, 1st portion .....  | 1   | 1,377·38 | 2·66                | 1      | 3,663·83    |
| „ 2nd do. ....   | 1   | 1,377·38 | $\frac{2\ 06+2}{2}$ | 2      | 6,418·59    |
| Total solid feet of building dwarf wall for the pitching<br>to abut against, of uncoursed rubble masonry ..... |     |          |                     |        | 15,123·63   |

*Filling in Puddle Trench with Clay.*

|  | No. | Length. | Breadth. | Depth. | Solid Feet. |
|--|-----|---------|----------|--------|-------------|
| Same as the excavation<br>above.....                       | ..  | ..      | ..       | ..     | 3,99,418·50 |
| Total solid feet of filling in puddle trench with clay.... |     |         |          |        | 3,99,418·50 |

*Constructing Puddle Wall of Embankment above the Trench filled in with Clay.*

|                   | No. | Length.     | Breadth.  | Depth or Height.                      | Solid Feet.      |
|-------------------|-----|-------------|---|---------------------------------------|------------------|
| 1st Portion ..... | 1   | 11          | $\frac{8 \cdot 87 + 8}{2} + \frac{8}{2}$                | $\frac{2 \cdot 18}{2}$                | 98 \cdot 58      |
| 2nd do. ....      | 1   | 24          | $\frac{11 \cdot 54 + 8}{2} + \frac{8 \cdot 87 + 8}{2}$  | $\frac{8 \cdot 87 + 2 \cdot 18}{2}$   | 1,206 \cdot 99   |
| 3rd do. ....      | 1   | 25 \cdot 5  | $\frac{14 \cdot 45 + 8}{2} + \frac{11 \cdot 54 + 8}{2}$ | $\frac{16 \cdot 13 + 8 \cdot 87}{2}$  | 3,346 \cdot 07   |
| 4th do. ....      | 1   | 12 \cdot 5  | $\frac{10 \cdot 08 + 8}{2} + \frac{11 \cdot 45 + 8}{2}$ | $\frac{21 \cdot 72 + 16 \cdot 13}{2}$ | 2,787 \cdot 29   |
| 5th do. ....      | 1   | 22          | $\frac{20 \cdot 74 + 8}{2} + \frac{16 \cdot 62 + 8}{2}$ | $\frac{31 \cdot 85 + 21 \cdot 72}{2}$ | 7,869 \cdot 70   |
| 6th do. ....      | 1   | 18 \cdot 5  | $\frac{23 \cdot 67 + 8}{2} + \frac{20 \cdot 74 + 8}{2}$ | $\frac{39 \cdot 18 + 31 \cdot 85}{2}$ | 9,922 \cdot 75   |
| 7th do. ....      | 1   | 17 \cdot 25 | $\frac{24 \cdot 16 + 8}{2} + \frac{23 \cdot 67 + 8}{2}$ | $\frac{40 \cdot 4 + 39 \cdot 18}{2}$  | 10,952 \cdot 86  |
| 8th do. ....      | 1   | 28 \cdot 5  | $\frac{27 \cdot 14 + 8}{2} + \frac{24 \cdot 16 + 8}{2}$ | $\frac{47 \cdot 85 + 40 \cdot 4}{2}$  | 21,158 \cdot 48  |
| 9th do. ....      | 1   | 58 \cdot 5  | $\frac{28 \cdot 71 + 8}{2} + \frac{27 \cdot 14 + 8}{2}$ | $\frac{51 \cdot 78 + 47 \cdot 85}{2}$ | 52,345 \cdot 91  |
| 10th do. ....     | 1   | 116         | $\frac{28 \cdot 86 + 8}{2} + \frac{28 \cdot 71 + 8}{2}$ | $\frac{57 \cdot 16 + 51 \cdot 78}{2}$ | 116,213 \cdot 37 |
| 11th do. ....     | 1   | 6           | $\frac{31 \cdot 30 + 8}{2} + \frac{28 \cdot 86 + 8}{2}$ | $\frac{58 \cdot 25 + 57 \cdot 16}{2}$ | 6,592 \cdot 21   |
| 12th do. ....     | 1   | 18 \cdot 5  | $\frac{31 \cdot 04 + 8}{2} + \frac{31 \cdot 30 + 8}{2}$ | $\frac{59 \cdot 80 + 58 \cdot 25}{2}$ | 21,642 \cdot 77  |
| 13th do. ....     | 1   | 32          | $\frac{31 \cdot 50 + 8}{2} + \frac{31 \cdot 04 + 8}{2}$ | $\frac{58 \cdot 90 + 59 \cdot 80}{2}$ | 37,808 \cdot 56  |
| 14th do. ....     | 1   | 14          | $\frac{30 \cdot 07 + 8}{2} + \frac{31 \cdot 50 + 8}{2}$ | $\frac{55 \cdot 19 + 58 \cdot 99}{2}$ | 15,517 \cdot 63  |
| 15th do. ....     | 1   | 40          | $\frac{20 \cdot 79 + 8}{2} + \frac{30 \cdot 07 + 8}{2}$ | $\frac{54 \cdot 49 + 55 \cdot 19}{2}$ | 41,601 \cdot 62  |
| 16th do. ....     | 1   | 68 \cdot 5  | $\frac{28 \cdot 5 + 8}{2} + \frac{29 \cdot 79 + 8}{2}$  | $\frac{51 \cdot 25 + 54 \cdot 49}{2}$ | 67,262 \cdot 08  |
| 17th do. ....     | 1   | 35 \cdot 5  | $\frac{28 \cdot 64 + 8}{2} + \frac{28 \cdot 5 + 8}{2}$  | $\frac{51 \cdot 01 + 51 \cdot 25}{2}$ | 33,384 \cdot 11  |
| 18th do. ....     | 1   | 47 \cdot 5  | $\frac{29 \cdot 25 + 8}{2} + \frac{28 \cdot 64 + 8}{2}$ | $\frac{55 \cdot 23 + 51 \cdot 01}{2}$ | 46,106 \cdot 88  |

*Constructing Puddle Wall, &c.—(continued.)*

|                        | No. | Length. | Breadth.                                 | Depth or Height.            | Solid Feet. |
|------------------------|-----|---------|--|-----------------------------|-------------|
| 19th Portion . . . . . | 1   | 53·5    | $\frac{0\ 01+8}{2} + \frac{20\ 31+8}{2}$ | $\frac{1\ 03+7\ 13}{2}$     | 54,595·69   |
| 20th do. . . . .       | 1   | 46·5    | $\frac{1\ 18+8}{2} + \frac{30\ 01+8}{2}$ | $\frac{1\ 10+7\ 5\ 01}{2}$  | 48,577·27   |
| 21st do. . . . .       | 1   | 11      | $\frac{0\ 1+8}{2} + \frac{21\ 18+8}{2}$  | $\frac{1\ 42+7\ 10}{2}$     | 11,871·14   |
| 22nd do. . . . .       | 1   | 24      | $\frac{1\ 1+8}{2} + \frac{1\ 1+8}{2}$    | $\frac{1\ 1+7\ 3}{2}$       | 25,520·61   |
| 23rd do. . . . .       | 1   | 88      | $\frac{1\ 14+8}{2} + \frac{1\ 1+8}{2}$   | $\frac{1\ 17+7\ 01}{2}$     | 87,074·25   |
| 24th do. . . . .       | 1   | 9       | $\frac{1\ 1+8}{2} + \frac{24\ 18+8}{2}$  | $\frac{1\ 0+7\ 1\ 07}{2}$   | 8,257·87    |
| 25th do. . . . .       | 1   | 72      | $\frac{1\ 1+8}{2} + \frac{2\ 1+8}{2}$    | $\frac{1\ 07+7\ 0\ 20}{2}$  | 62,052·85   |
| 26th do. . . . .       | 1   | 9·5     | $\frac{2\ 18+8}{2} + \frac{27\ 18+8}{2}$ | $\frac{4\ 18+7\ 07}{2}$     | 7,597·01    |
| 27th do. . . . .       | 1   | 111     | $\frac{1\ 04+8}{2} + \frac{2\ 1+8}{2}$   | $\frac{1\ 07+7\ 11\ 08}{2}$ | 79,432·38   |
| 28th do. . . . .       | 1   | 57      | $\frac{1\ 18+8}{2} + \frac{1\ 1+8}{2}$   | $\frac{1\ 1+7\ 0\ 07}{2}$   | 33,732·39   |
| 29th do. . . . .       | 1   | 15      | $\frac{2\ 18+8}{2} + \frac{22\ 18+8}{2}$ | $\frac{0\ 1+7\ 1\ 05}{2}$   | 7,307·78    |
| 30th do. . . . .       | 1   | 19      | $\frac{1\ 0+8}{2} + \frac{20\ 18+8}{2}$  | $\frac{1\ 04+7\ 0\ 10}{2}$  | 7,974·49    |
| 31st do. . . . .       | 1   | 20·5    | $\frac{1\ 10+8}{2} + \frac{1\ 0+8}{2}$   | $\frac{1\ 04+7\ 0\ 12}{2}$  | 6,720·61    |
| 32nd do. . . . .       | 1   | 34·5    | $\frac{1\ 11+8}{2} + \frac{1\ 08+8}{2}$  | $\frac{1\ 07+7\ 0\ 00}{2}$  | 6,865·17    |
| 33rd do. . . . .       | 1   | 30      | $\frac{1\ 11+8}{2} + \frac{1\ 11+8}{2}$  | $\frac{1\ 08+7\ 1\ 10}{2}$  | 3,437·97    |
| 34th do. . . . .       | 1   | 70·5    | $\frac{1\ 08+8}{2} + \frac{1\ 11+8}{2}$  | $\frac{0\ 00+7\ 0\ 79}{2}$  | 2,716·59    |

Total solid feet, constructing puddle wall of embankment . . . . . 9,49,551·93



*Covering Internal Slope and Top of Embankment with Rough  
Stone Pitching.*

|                               | No. | Length.   | Breadth or<br>Slope.              | Square Feet.* |
|-------------------------------|-----|-----------|-----------------------------------|---------------|
| INTERNAL SLOPE OF EMBANKMENT. |     |           |                                   |               |
|                               |     |           | Hypotenuse.                       |               |
| 1st Portion .....             | 1   | 11        | $\frac{6\cdot89+0\cdot00}{2}$     | 37\cdot89     |
| 2nd do. ....                  | 1   | 24        | $\frac{28\cdot04+6\cdot89}{2}$    | 419\cdot16    |
| 3rd do. ....                  | 1   | 25\cdot5  | $\frac{51\cdot00+28\cdot04}{2}$   | 1,007\cdot76  |
| 4th do. ....                  | 1   | 12\cdot5  | $\frac{60\cdot48+51\cdot00}{2}$   | 753\cdot00    |
| 5th do. ....                  | 1   | 22        | $\frac{100\cdot00+60\cdot48}{2}$  | 1,871\cdot87  |
| 6th do. ....                  | 1   | 18\cdot5  | $\frac{123\cdot88+100\cdot00}{2}$ | 2,077\cdot27  |
| 7th do. ....                  | 1   | 17\cdot25 | $\frac{127\cdot73+123\cdot88}{2}$ | 2,170\cdot13  |
| 8th do. ....                  | 1   | 28\cdot5  | $\frac{151\cdot28+127\cdot73}{2}$ | 3,975\cdot89  |
| 9th do. ....                  | 1   | 58\cdot5  | $\frac{103\cdot72+151\cdot28}{2}$ | 9,213\cdot75  |
| 10th do. ....                 | 1   | 116       | $\frac{180\cdot72+103\cdot72}{2}$ | 19,977\cdot52 |
| 11th do. ....                 | 1   | 6         | $\frac{184\cdot10+180\cdot72}{2}$ | 1,094\cdot64  |
| 12th do. ....                 | 1   | 18\cdot5  | $\frac{180\cdot20+184\cdot10}{2}$ | 3,454\cdot41  |
| 13th do. ....                 | 1   | 32        | $\frac{186\cdot54+180\cdot20}{2}$ | 6,013\cdot28  |
| 14th do. ....                 | 1   | 14        | $\frac{174\cdot40+186\cdot54}{2}$ | 2,527\cdot20  |
| 15th do. ....                 | 1   | 40        | $\frac{172\cdot28+174\cdot40}{2}$ | 6,935\cdot40  |
| 16th do. ....                 | 1   | 68\cdot5  | $\frac{102\cdot04+172\cdot28}{2}$ | 11,450\cdot46 |
| 17th do. ....                 | 1   | 35\cdot5  | $\frac{163\cdot18+102\cdot04}{2}$ | 5,772\cdot65  |
| 18th do. ....                 | 1   | 47\cdot5  | $\frac{168\cdot02+163\cdot18}{2}$ | 7,880\cdot25  |
| 19th do. ....                 | 1   | 53\cdot5  | $\frac{174\cdot00+168\cdot02}{2}$ | 9,165\cdot08  |
| 20th do. ....                 | 1   | 46\cdot5  | $\frac{173\cdot73+174\cdot00}{2}$ | 8,084\cdot72  |
| 21st do. ....                 | 1   | 11        | $\frac{185\cdot23+173\cdot73}{2}$ | 1,974\cdot28  |
| 22nd do. ....                 | 1   | 24        | $\frac{170\cdot44+185\cdot23}{2}$ | 4,268\cdot04  |
| 23rd do. ....                 | 1   | 88\cdot5  | $\frac{164\cdot32+170\cdot44}{2}$ | 14,813\cdot13 |
| 24th do. ....                 | 1   | 9         | $\frac{155\cdot84+164\cdot32}{2}$ | 1,440\cdot72  |
| 25th do. ....                 | 1   | 72        | $\frac{181\cdot07+155\cdot84}{2}$ | 11,070\cdot36 |

*Covering Internal Slope, &c.—(continued.)*

|   | No. | Length. | Breadth or Slope.                 | Square Feet. |
|---|-----|---------|-----------------------------------|--------------|
| INTERNAL SLOPE OF EMBANKMENT.   |     |         |                                   |              |
|   |     |         | Hypotenuse.                       |              |
| 26th Portion .....  | 1   | 9·5     | $\frac{141\cdot20+151\cdot07}{2}$ | 1,391·41     |
| 27th do. ....   | 1   | 114     | $\frac{120\cdot38+111\cdot20}{2}$ | 15,255·48    |
| 28th do. ....   | 1   | 57      | $\frac{113\cdot67+126\cdot38}{2}$ | 6,841·42     |
| 29th do. ....   | 1   | 15      | $\frac{90\cdot02+113\cdot67}{2}$  | 1,577·17     |
| 30th do. ....   | 1   | 19      | $\frac{93\cdot02+105\cdot62}{2}$  | 1,801·58     |
| 31st do. ....   | 1   | 20·5    | $\frac{60\cdot08+93\cdot02}{2}$   | 1,630·77     |
| 32nd do. ....   | 1   | 34·5    | $\frac{43\cdot60+60\cdot08}{2}$   | 1,891·98     |
| 33rd do. ....   | 1   | 30      | $\frac{27\cdot76+43\cdot00}{2}$   | 1,070·40     |
| 34th do. ....   | 1   | 70·5    | $\frac{0\cdot00+27\cdot76}{2}$    | 978·54       |
| Top of embankment .....   | 1   | 1270·25 | $\frac{20}{1}$                    | 25,405·00    |
| Part of external slope .....  | 1   | 1230·16 | $\frac{10}{1}$                    | 12,301·60    |
| Total square feet covering internal slope and top of embankment with rough stone pitching, on a bottom of quarry shivers and loose small stones nine inches deep. |     |         |                                   | 202,594·22   |

*Forming Embankment.*

|                   | No. | Length. | Area of Prismoid. | Solid Feet. |
|-------------------|-----|---------|-------------------|-------------|
| 1st Portion ..... | 1   | 70·5    | 152·04            | 10,718·82   |
| 2nd do. ....      | 1   | 30      | 549·30            | 16,479·00   |
| 3rd do. ....      | 1   | 34·5    | 1,109·554         | 38,279·61   |
| 4th do. ....      | 1   | 20·5    | 2,100·887         | 43,068·18   |

*Forming Embankment—(continued).*

|                   | No. | Length. | Area of<br>Prismoid. | Solid Feet. |
|-------------------|-----|---------|----------------------|-------------|
| 5th Portion ..... | 1   | 19      | 2,848·571            | 54,122·84   |
| 6th do. ....      | 1   | 15      | 3,435·89             | 51,538·35   |
| 7th do. ....      | 1   | 57      | 4,364·97             | 2,48,803·29 |
| 8th do. ....      | 1   | 114     | 5,329·635            | 6,07,578·90 |
| 9th do. ....      | 1   | 9·5     | 6,293·769            | 59,790·80   |
| 10th do. ....     | 1   | 72      | 6,885·155            | 4,95,731·16 |
| 11th do. ....     | 1   | 9       | 7,422·588            | 66,803·29   |
| 12th do. ....     | 1   | 88·5    | 8,066·193            | 7,13,858·08 |
| 13th do. ....     | 1   | 24      | 8,847·292            | 2,12,335·00 |
| 14th do. ....     | 1   | 11      | 9,001·715            | 99,018·86   |
| 15th do. ....     | 1   | 46·5    | 8,659·551            | 4,02,669·12 |
| 16th do. ....     | 1   | 53·5    | 8,422·883            | 4,50,624·24 |
| 17th do. ....     | 1   | 47·5    | 7,932·768            | 3,76,806·48 |
| 18th do. ....     | 1   | 35·5    | 7,641·239            | 2,71,263·98 |
| 19th do. ....     | 1   | 68·5    | 8,047·679            | 5,51,266·01 |
| 20th do. ....     | 1   | 40      | 8,615·466            | 3,41,618·64 |
| 21st do. ....     | 1   | 14      | 9,292·978            | 1,30,101·69 |
| 22nd do. ....     | 1   | 32      | 10,016·983           | 3,20,543·45 |
| 23rd do. ....     | 1   | 18·5    | 9,900·372            | 1,83,156·88 |
| 24th do. ....     | 1   | 6       | 9,479·014            | 56,874·08   |
| 25th do. ....     | 1   | 116     | 8,512·882            | 9,87,494·31 |
| 26th do. ....     | 1   | 58·5    | 7,203·352            | 4,21,396·09 |
| 27th do. ....     | 1   | 28·5    | 5,761·602            | 1,64,205·65 |
| 28th do. ....     | 1   | 17·25   | 4,754·22             | 82,010·29   |
| 29th do. ....     | 1   | 18·5    | 3,874·781            | 71,683·44   |
| 30th do. ....     | 1   | 22      | 2,350·668            | 51,714·69   |
| 31st do. ....     | 1   | 12·5    | 1,280·399            | 16,004·98   |

*Forming Embankment—(continued).*

|   | No. | Length. | Area of Prismoid. | Solid Feet.  |
|---|-----|---------|-------------------|--------------|
| 32nd Portion .....                                    | 1   | 25.5    | 651.605           | 16,615.92    |
| 33rd do. ....   | 1   | 24      | 196.138           | 4,707.31     |
| 34th do. ....   | 1   | 11      | 25.76             | 283.36       |
| Total solid feet. . . .                               |     |         |                   | 7,622,166.79 |
| Deduct puddle wall of embankment as above, cubic feet |     |         |                   | 949,551.93   |
| Total solid feet forming embankment . . .             |     |         |                   | 6,672,614.86 |

## ABSTRACT.

| Quantities. |  | Rs. a. p.  |
|-------------|--|------------|
| 53,584      | Solid feet stepping the embankment into the hill sides in moorum, at Rs. 0-10-6 per 100 solid feet .....                                       | 351 10 3   |
| 2,55,162    | Solid feet stripping the earth from the bed of the embankment, at Rs. 0-4-0 per 100 solid feet .....   | 637 14 5   |
| 20,164      | Solid feet of excavation for dwarf wall at the foot of the embankment upstream side, in earth and gravel, at Rs. 0-7-0 per 100 solid feet..... | 88 3 5     |
| 3,99,418    | Solid feet of excavation for trench to receive the puddle in earth, gravel, and water, at Rs. 2-8-0 per 100 solid feet.                        | 9,985 7 2  |
| 15,123      | Solid feet of building dwarf wall for the pitching to abut against, of uncoursed rubble masonry, at Rs. 8 per 100 solid feet .....             | 1,209 13 5 |

## ABSTRACT—(continued).

| Quantities.                               |   | Rs. a. p.    |
|---|---|--------------|
| 3,99,418                                  | Solid feet of filling in puddle trench with clay, at Rs. 1-2-0 per 100 solid feet. .  | 4,493 7 2    |
| 9,49,551                                  | Solid feet constructing puddle wall of embankment, at Rs. 1-2-0 per 100 solid feet . . . . .  | 10,682 7 2   |
| 2,02,594                                  | Square feet of covering internal slope of embankment, &c. with rough stone pitching set on end, on a bottom of quarry shivers and small stones nine inches thick, at Rs. 0-4-0 per square foot. . . . . | 50,648 8 0   |
| 66,72,614                                 | Solid feet of forming embankment, at Rs. 1 per 100 solid feet. . . . .  | 66,726 2 2   |
| Total . . . . .                           |   | 1,44,823 9 2 |
| Contingencies, at 5 per cent. . . . .     |   | 7,241 2 10   |
| Total amount for the embankment . . Rs. . |   | 1,52,064 0 0 |

## No. 2.—WASTE WEIR.

## MEASUREMENTS.

|  | No. | Length. | Breadth. | Depth. | Solid Feet. |
|--|-----|---------|----------|--------|-------------|
| Total solid feet excavation for waste weir . . . . . }         | ..  | ..      | ..       | ..     | 8,12,325    |
| Total solid feet excavation in moorum for waste weir . . . . . |     |         |          |        | 8,12,325    |

*Apron to Waste Weir. Excavating Foundation.*

|   | No. | Length. | Breadth.            | Depth. | Solid Feet. |
|---|-----|---------|---------------------|--------|-------------|
| The wall at two ends . . . . .  | 2   | 108     | 4                   | 6      | 5,184       |
| For the pavement . . . . .  | 1   | 60      | 108                 | 4      | 25,920      |
| Outside of ditto . . . . .  | 1   | 16      | $\frac{108+135}{2}$ | 2      | 3,888       |
| Total solid feet of excavating in moorum, for the foundation of the apron to the waste weir . . . . . |     |         |                     |        | 34,992      |

*Uncoursed Rubble Masonry in Foundation of the Apron.*

|   | No. | Length.             | Breadth. | Depth. | Solid Feet. |
|---|-----|---------------------|----------|--------|-------------|
| End walls . . . . .   | 2   | $\frac{108+103}{2}$ | 4        | 6      | 5,064       |
| Under the pavement . . . . .  | 1   | $\frac{108+103}{2}$ | 60       | 3      | 18,990      |
| Small retaining wall, both sides of the apron . . . . .                               | 2   | 68                  | 1.5      | 3      | 612         |
| Total solid feet of uncoursed rubble masonry in the foundation of the apron . . . . . |     |                     |          |        | 24,666      |

*Rough Stone Pavement in Waste Weir, set on Edge in Lime.*

|  | No. | Length. | Breadth.            | Square Feet. |
|--|-----|---------|---------------------|--------------|
| Between small retaining walls . . . . .                                  | 1   | 60      | 100                 | 6,000        |
| Outside of ditto ditto . . . . .   | 1   | 16      | $\frac{108+135}{2}$ | 1,944        |
| Total square feet of rough stone pavement, set on edge in lime . . . . . |     |         |                     | 7,944        |

## ABSTRACT.

| Quantity.                          |   | Rs. a. p.       |
|------------------------------------|---|-----------------|
| 8,12,325                           | Solid feet of excavating in moorum for waste weir, at Rs. 0-10-6 per 100 solid feet .....                 | 5,330 14 1      |
| 34,992                             | Solid feet of excavating in moorum for foundation of the apron, at Rs. 0-10-6 per 100 solid feet .....    | 229 10 1        |
| 24,666                             | Solid feet of uncoursed rubble masonry in the foundation for the apron, at Rs. 8 per 100 solid feet ..... | 1,973 4 5       |
| 7,944                              | Square feet of rough stone pavement set on edge in lime, at Rs. 0-5-0 per square foot .....               | 2,482 8 0       |
| Total .....                        |   | Rs.. 10,016 4 7 |
| Contingencies, at 5 per cent. .... |   | 500 13 0        |
| Total amount for waste weir ....   |   | Rs.. 10,517 0 0 |

No. 3.—ARTIFICIAL CUT TO CARRY OFF THE  
FIRST MONSOON FLOODS.

|   | No. | Length. | Breadth. | Depth. | Solid Feet.  |
|---|-----|---------|----------|--------|--------------|
| Total solid feet of excavation in moorum in cut .....   | ..  | ..      | ..       | ..     | 30,97,396·87 |
| Total solid feet of excavating in moorum for the artificial cut to carry off the first floods ..... |     |         |          |        | 30,97,396·87 |

## ABSTRACT.

| Quantity.   |  | Rs. a. p.   |
|---|--|-------------|
| 30,97,396   | Solid feet excavating artificial cut in moorum, at Rs. 0-10-6 per 100 solid feet . . } | 20,326 10 6 |
| Total . . . . . Rs..                                  |  | 20,326 10 6 |
| Contingencies, at 5 per cent. . . . .                 |  | 1,016 5 3   |
| Total amount for excavating artificial cut . . . Rs.. |  | 21,342 0 0  |

## CONSTRUCTING MASONRY DAM ACROSS THE AMBEYGAUM NULLAH.

*Excavating Foundation in Earth.*

|   | No. | Length. | Breadth. | Depth.                | Solid Feet. |
|---|-----|---------|----------|-----------------------|-------------|
| 1st Portion from the left . .                             | 1   | 10      | 8·70     | $\frac{7·82+4·59}{2}$ | 539·83      |
| 2nd do. . . . .   | 1   | 3       | 8·70     | $\frac{4·50+2·31}{2}$ | 90·04       |
| 3rd do. . . . .   | 1   | 4       | 8·70     | $\frac{2·31+2·28}{2}$ | 19·86       |
| 4th do. . . . .   | 1   | 6       | 12·30    | $\frac{7·17+1·24}{2}$ | 310·32      |
| 5th do. . . . .   | 1   | 11      | 12·30    | $\frac{1·24}{2}$      | 83·88       |
| 6th do. . . . .   | 1   | 15      | 12·30    | $\frac{0·85}{2}$      | 87·63       |
| 7th do. . . . .   | 1   | 4       | 12·30    | $\frac{7·80+0·95}{2}$ | 215·25      |
| 8th do. . . . .   | 1   | 7       | 12·30    | $\frac{7·80+9·58}{2}$ | 748·20      |
| 9th do. . . . .   | 1   | 20      | 8·86     | $\frac{5·72+5·00}{2}$ | 949·79      |
| Total solid feet excavating foundation in earth . . . . . |     |         |          |                       | 3,104·80    |



*Excavating Foundation in Soft Rock.*

|   | No. | Length. | Breadth. | Depth. | Solid Feet.     |
|---|-----|---------|----------|--------|-----------------|
| For foundation .....  | 1   | 43      | 12·30    | 2      | 1,057·80        |
| Total solid feet excavating foundation in soft rock . . . . |     |         |          |        | <u>1,057·80</u> |

*Building Foundation of Uncoursed Rubble Masonry.*

|   | No. | Length. | Breadth. | Depth. | Solid Feet.     |
|---|-----|---------|----------|--------|-----------------|
| 1st Portion.....  | 1   | 17      | 8·70     | 2      | 295·80          |
| 2nd ditto .....   | 1   | 43      | 12·30    | 2      | 1,057·80        |
| 3rd ditto .....   | 1   | 20      | 8·86     | 2      | 354·40          |
| Total solid feet uncoursed rubble masonry in the foundation ..... |     |         |          |        | <u>1,708·00</u> |

*Building Dam of Coursed Rubble Masonry.*

|  | No. | Length. | Breadth.               | Depth. | Solid Feet.     |
|--|-----|---------|------------------------|--------|-----------------|
| 1st Portion.....   | 1   | 17      | $\frac{6\cdot70+5}{2}$ | 5·41   | 538·02          |
| 2nd ditto .....  | 1   | 43      | $\frac{10\cdot3+5}{2}$ | 10·30  | 3,388·18        |
| 3rd ditto .....  | 1   | 20      | $\frac{6\cdot86+5}{2}$ | 5·72   | 678·39          |
| Total solid feet of coursed rubble masonry in superstructure ..... |     |         |                        |        | <u>4,604·59</u> |

## ABSTRACT.

| Quantity.  |  | Rs. a. p. |
|--|--|-----------|
| 3,104  | Solid feet excavating foundation in earth,<br>at Rs. 0-4-0 per 100 solid feet.....                     | 7 12 1    |
| 1,057  | Solid feet excavating foundation in soft<br>rock, at Rs. 2 per 100 solid feet .....                    | 21 2 2    |
| 1,708  | Solid feet uncoursed rubble masonry in<br>foundation, at Rs. 8 per 100 solid feet..                    | 136 10 2  |
| 4,604  | Solid feet of coursed rubble masonry in the<br>superstructure, at Rs. 9-8-0 per 100 solid<br>feet..... | 437 6 0   |
| Total ....Rs..                                   |  | 602 14 5  |
| Contingencies, at 5 per cent .....               |  | 30 2 3    |
| Total amount for the Ambeygaum Nullah dam ..Rs.. |  | 633 0 0   |

## CONSTRUCTING MASONRY DAM ACROSS THE LAINDEE NULLAH.

*Excavating Foundation in Earth.*

|                              | No. | Length. | Breadth. | Depth.                  | Solid Feet. |
|------------------------------|-----|---------|----------|-------------------------|-------------|
| 1st Portion from the left .. | 1   | 23      | 11·83    | $\frac{10·17+0·22}{2}$  | 2,637·91    |
| 2nd do. do. ..               | 1   | 16      | 11·83    | $\frac{0·22+8·00}{2}$   | 1,686·48    |
| 3rd do. do. ..               | 1   | 11      | 11·83    | $\frac{8·00+8·71}{2}$   | 1,126·27    |
| 4th do. do. ..               | 1   | 10      | 11·83    | $\frac{8·71+8·50}{2}$   | 1,023·29    |
| 5th do. do. ..               | 1   | 14      | 11·83    | $\frac{8·50+0·00}{2}$   | 1,456·62    |
| 6th do. do. ..               | 1   | 9       | 17·63    | $\frac{18·46+15·00}{2}$ | 2,709·29    |
| 7th do. do. ..               | 1   | 17      | 17·63    | $\frac{15·00+13·48}{2}$ | 4,371·27    |

## CONSTRUCTING MASONRY DAM—(continued).

|  | No. | Length. | Breadth | Depth.                    | Solid Feet.      |
|--|-----|---------|---------|---------------------------|------------------|
| 8th Portion from the left ..                         | 1   | 14      | 17·63   | $\frac{13\ 18+10\ 00}{2}$ | 2,897·66         |
| 9th do. do. ..                                       | 1   | 9       | 17·63   | $\frac{10\ 00+20\ 10}{2}$ | 2,395·12         |
| 10th do. do. ..                                      | 1   | 20      | 12·5    | $\frac{11\ 10+11\ 30}{2}$ | 2,758·70         |
| Total solid feet excavating foundation in earth .... |     |         |         |                           | <u>23,062 61</u> |

*Building Foundations of Uncoursed Rubble Masonry.*

|  | No. | Length | Breadth. | Depth. | Solid Feet.     |
|--|-----|--------|----------|--------|-----------------|
| 1st Portion .....  | 1   | 74     | 11·83    | 0·54   | 427·72          |
| 2nd do. ....   | 1   | 49     | 17·63    | 2·5    | 2,159·67        |
| 3rd do. ....   | 1   | 49     | 15·63    | 2·5    | 1,914·67        |
| 4th do. ....   | 1   | 49     | 13·63    | 2·5    | 1,669·67        |
| 5th do. ....   | 1   | 49     | 11·63    | 2·5    | 1,424·67        |
| 6th do. ....   | 1   | 20     | 12·5     | 0·62   | 151·90          |
| Total solid feet uncoursed rubble masonry in the foundations ..... |     |        |          |        | <u>7,748·30</u> |

*Building Dam of Coursed Rubble Masonry.*

|  | No. | Length. | Breadth.                | Depth. | Solid Feet.     |
|--|-----|---------|-------------------------|--------|-----------------|
| Building dam .....   | 1   | 143     | $\frac{9\ 63+4\ 73}{2}$ | 9·63   | 9,901·27        |
| Total solid feet coursed rubble masonry in superstructure. . |     |         |                         |        | <u>9,901·27</u> |

## ABSTRACT.

| Quantity.                                      |   | Rs. a. p. |
|--|---|-----------|
| 23,062   | Solid feet excavating foundation in earth,<br>at Rs. 0-4-0 per 100 solid feet.....                  | 57 10 5   |
| 7,748  | Solid feet uncoursed rubble masonry in<br>the foundations, at Rs. 8 per 100 solid<br>feet .....     | 619 13 5  |
| 9,901  | Solid feet coursed rubble masonry in the<br>superstructure at Rs. 9-8-0 per 100 solid<br>feet ..... | 940 9 6   |
| Total....Rs..                                  |   | 1,618 1 4 |
| Contingencies, at 5 per cent. ....             |   | 80 14 5   |
| Total amount for the Laindee Nullah dam ..Rs.. |   | 1,698 0 0 |

## MASONRY DAM ACROSS THE KONDWEH NULLAH.

*Excavating Foundation in Moorum.*

|   | No. | Length. | Breadth. | Depth.                  | Solid Feet. |
|---|-----|---------|----------|-------------------------|-------------|
| 1st Portion .....                                     | 1   | 8       | 15.56    | $\frac{17.48+14.85}{2}$ | 2,012.21    |
| 2nd do. ....  | 1   | 5       | 15.56    | $\frac{14.85+4.00}{2}$  | 733.26      |
| 3rd do. ....  | 1   | 14      | 15.56    | $\frac{4.00+5.75}{2}$   | 1,061.97    |
| 4th do. ....  | 1   | 14      | 15.56    | $\frac{5.75+11.70}{2}$  | 1,900.65    |
| 5th do. ....  | 1   | 29      | 9.30     | $\frac{5.0+7.11}{2}$    | 1,633.03    |
| Total solid feet excavating foundation in moorum .... |     |         |          |                         | 7,341.12    |

*Building Foundation of Uncoursed Rubble Masonry.*

|  | No. | Length. | Breadth | Depth. | Solid Feet. |
|--|-----|---------|---------|--------|-------------|
| 1st Portion .....  | 1   | 41      | 15.56   | 2      | 1,275.92    |
| 2nd ditto. ....  | 1   | 41      | 15.56   | 2      | 1,275.92    |
| Total solid feet of uncoursed rubble masonry in the foundation ..... |     |         |         |        | 2,551.84    |

*Building Dam of Coursed Rubble Masonry.*

|  | No. | Length. | Breadth.               | Depth. | Solid Feet. |
|--|-----|---------|------------------------|--------|-------------|
| 1st Portion .....  | 1   | 41      | $\frac{11.50+5.75}{2}$ | 11.56  | 4,102.12    |
| 2nd ditto. ....  | 1   | 29      | $\frac{7.70+5.75}{2}$  | 7.11   | 1,386.62    |
| Total solid feet of coursed rubble masonry in superstructure. .... |     |         |                        |        | 5,488.74    |

## ABSTRACT.

| Quantity.                                       |  | Rs. a. p. |
|---|--|-----------|
| 7,431   | Solid feet excavating foundation in moorum, at Rs. 0-10-6 per 100 solid feet ..            | 48 2 9    |
| 2,551   | Solid feet uncoursed rubble masonry in foundations, at Rs. 8 per 100 solid feet .....      | 204 1 3   |
| 5,488   | Solid feet coursed rubble masonry in superstructure, at Rs. 9-8-0 per 100 solid feet ..... | 521 5 9   |
| Total....Rs..                                   |  | 773 9 9   |
| Contingencies, at 5 per cent. ....              |  | 38 10 10  |
| Total amount for the Kondweh Nullah Dam ...Rs.. |  | 812 0 0   |

MASONRY DAM ACROSS THE NAHAVEE-DURRA NULLAH.

*Excavating Foundation in Moorum.*

|   | No. | Length | Breadth. | Depth.                | Solid Feet. |
|---|-----|--------|----------|-----------------------|-------------|
| 1st Portion .....                                     | 1   | 8      | 8·97     | $\frac{8·97+5·19}{2}$ | 508·06      |
| 2nd do. ....  | 1   | 5      | 8·97     | $\frac{5·19+4·0}{2}$  | 206·08      |
| 3rd do. ....  | 1   | 7      | 8·97     | $\frac{4·0+6·08}{2}$  | 316·46      |
| 4th do. ....  | 1   | 4      | 8·97     | $\frac{6·08+6·83}{2}$ | 231·60      |
| 5th do. ....  | 1   | 10     | 8·97     | $\frac{6·83+7·48}{2}$ | 641·80      |
| 6th do. ....  | 1   | 10     | 6·97     | $\frac{4·0+5·49}{2}$  | 330·72      |
| Total solid feet excavating foundation in moorum .... |     |        |          |                       | 2,234·72    |

2

*Building Foundation of Uncoursed Rubble Masonry.*

|  | No. | Length. | Breadth. | Depth. | Solid Feet. |
|--|-----|---------|----------|--------|-------------|
| 1st Portion .....  | 1   | 34      | 8·97     | 2      | 609·96      |
| 2nd do. ....   | 1   | 10      | 8·97     | 2      | 179·40      |
| 3rd do. ....   | 1   | 10      | 6·97     | 0·52   | 36·24       |
| Total solid feet uncoursed rubble masonry in foundation. . |     |         |          |        | 825·60      |

*Building Dam of Coursed Rubble Masonry.*

|  | No. | Length. | Breadth.             | Depth. | Solid Feet. |
|--|-----|---------|----------------------|--------|-------------|
| 1st Portion .....  | 1   | 34      | $\frac{4·97+2·5}{2}$ | 4·97   | 631·14      |
| 2nd ditto .....  | 1   | 10      | $\frac{4·97+2·5}{2}$ | 4·97   | 185·62      |
| Total solid feet coursed rubble masonry in superstructure. |     |         |                      |        | 816·76      |

## ABSTRACT.

| Quantity.  |  | Rs. a. p. |
|--|--|-----------|
| 2,234  | Solid feet excavating foundation in moorum, at Rs. 0-10-6 per 100 solid feet ..              | 14 10 6   |
| 825  | Solid feet of uncoursed rubble masonry in foundation, at Rs. 8 per 100 solid feet.....       | 66 0 0    |
| 816  | Solid feet of coursed rubble masonry in superstructure, at Rs. 9-8-0 per 100 solid feet..... | 77 8 3    |
| Total....Rs..                                      |  | 158 2 9   |
| Contingencies, at 5 per cent.....                  |  | 7 14 6    |
| Total amount for the Nahavee-Durra Nullah ....Rs.. |  | 166 1 3   |

## RECAPITULATION.

|   | Rs. a. p.  |
|---|------------|
| Amount for excavating the cut to carry off the first floods.. | 21,342 0 0 |
| do. Ambeygaum Nullah dam .....                                | 633 0 0    |
| do. Laindee Nullah dam .....                                  | 1,698 0 0  |
| do. Kondweh Nullah dam .....                                  | 812 0 0    |
| do. Nahavee-Durra Nullah dam .....                            | 166 0 0    |
| Grand total for the artificial cut .....Rs..                  | 24,651 0 0 |

## No. 4.—INLET TOWER.

*Excavating the Foundation for the Tower.*

|   | No. | Length | Breadth. | Depth. | Solid Feet. |
|---|-----|--------|----------|--------|-------------|
| Excavating foundation of tower  | 1   | 33     | 33       | 13     | 14,157      |
| Total solid feet excavating foundation in sand, gravel, and water ..... |     |        |          |        | 14,157      |

*Coursed Rubble Masonry in Foundation.*

|  | No. | Length.             | Breadth           | Depth. | Solid Feet. | Solid Feet. |
|--|-----|---------------------|-------------------|--------|-------------|-------------|
| 1st portion from the base of the tower .....                                 | 1   | 33                  | 33                | 2      | 2,178·00    |             |
| 2nd do. do..   | 1   | 31 <sup>2</sup>     | ·7854             | 1      | 754·76      |             |
| 3rd do. do..   | 1   | 30 <sup>2</sup>     | ·7854             | 1      | 706·86      |             |
| 4th do. do..   | 1   | 29 <sup>2</sup>     | ·7854             | 1      | 660·52      |             |
| 5th do. do..   | 1   | 28 <sup>2</sup>     | ·7854             | 1      | 615·75      |             |
| 6th do. do..   | 1   | 27 <sup>2</sup>     | ·7854             | 1      | 572·55      |             |
| 7th do. do..   | 1   | 26 <sup>2</sup>     | ·7854             | 1      | 530·93      |             |
| 8th do. do..   | 1   | 25 <sup>2</sup>     | ·7854             | 1      | 490·87      |             |
| 9th do. do..   | 1   | 24 <sup>2</sup>     | ·7854             | 1      | 452·39      |             |
| Total..  | ..  | .....               | .....             | .....  | .....       | 6,962·63    |
| DEDUCT.  |     |                     |                   |        |             |             |
| Semisphere inverted.   | 1   | 18 <sup>3</sup>     | $\frac{·5236}{2}$ |        | 1,526·81    |             |
| Portion of iron tube occupying the space .....                               | 1   | $\frac{8·5+4·5}{2}$ | 3 <sup>2</sup>    | ·7854  | 45·95       |             |
| Total deductions ..  | ..  | .....               | .....             | .....  | .....       | 1,572·76    |
| Total solid feet coursed rubble masonry in the foundation of the tower ..... |     |                     |                   |        |             | 5,389·87    |



*Circular Invert on which the Tower rests.*

|   | No. | Diameter         | Breadth         | Depth. | Solid Feet | Solid Feet. |
|---|-----|------------------|-----------------|--------|------------|-------------|
| Taking the outersurface of the circular invert .....                              | 1   | 18 <sup>3</sup>  | 7 <sup>30</sup> | ....   | 1526.81    |             |
| Total..   | ..  | ....             | ....            | ....   | .....      | 1526.81     |
| Deduct.   |     |                  |                 |        |            |             |
| Semi-spherical portion .....  | 1   | 13 <sup>3</sup>  | 7 <sup>30</sup> | ....   | 575.17     |             |
| Portion occupied by tube .....  | 1   | $\frac{27+4}{2}$ | 3 <sup>2</sup>  | 7854   | 22.97      |             |
| Total deductions ..   | ..  | ....             | ....            | ....   | .....      | 598.14      |
| Total solid feet in semi-spherical invert of roughly-dressed stone and lime ..... |     |                  |                 |        |            | 928.67      |

*Domed Floor on which the Steps rest, over the Filter.*

|  | No | Length  | Breadth | Depth | Solid Feet. | Solid Feet. |
|--|----|---|---------|-------|-------------|-------------|
| Taken as a solid mass.                                       | 1  | 13 <sup>2</sup>   | 7854    | 2.75  | 356.01      |             |
| Total..  | .. | ....  | ....    | ....  | .....       | 356.01      |
| Deduct.  |    |   |         |       |             |             |
| Segmental portion ..   | 1  | $13 \times 3 - 1.25 \times 2 \times 1.25 \times 5236 =$ |         |       |             | 29.86       |
| Total solid feet in domed stone floor of cut-stone masonry.. |    |   |         |       |             | 326.15      |

*Walls of Tower.*

|  | No. | Length.                                  | Breadth.              | Height. | Solid Feet.      |
|--|-----|--|-----------------------|---------|------------------|
| Walls of tower .....                     | 1   | $\frac{61 \cdot 5488 + 5 \cdot 2975}{2}$ | $\frac{5 \cdot 3}{2}$ | 60      | 12,816·52        |
| Total solid feet cut-stone masonry ..... |     |  |                       |         | <u>12,816·52</u> |

*Steps in the Inside of Tower.*

|   | No. | Length. | Breadth. | Depth. | Solid Feet. |
|---|-----|---------|----------|--------|-------------|
| Steps .....   | 44  | 2       | 1        | 1      | 44          |
| No. of cut-stone steps in the interior of the tower ..... |     |         |          |        | <u>44</u>   |

*Filling in with Dry Stone the Base of the Tower, used as a Filler.*

|   | No. | Length.         | Breadth.         | Depth. | Solid Feet.   |
|---|-----|-----------------|------------------|--------|---------------|
| 1st portion .....   | 1   | 13 <sup>3</sup> | $\frac{7854}{3}$ | ....   | 575·17        |
| 2nd ditto .....   | 1   | 13 <sup>2</sup> | 7854             | 1·25   | 165·91        |
| Total solid feet filling in with dry stone (amygdaloid).... |     |                 |                  |        | <u>741·08</u> |

*Filling in Fine and Coarse Sand to Filter.*

|   | No. | Length.         | Breadth.                        | Depth.                             | Solid Feet.     |
|---|-----|-----------------|---------------------------------|------------------------------------|-----------------|
| Base of tower (coarse sand) ..                      | 1   | 13 <sup>2</sup> | 7854                            | 5·75                               | 763·21          |
| Upper part (fine sand).....                         | 1   | 13 <sup>2</sup> | 7854                            | 5·25                               | 696·84          |
| Do. (do.) .....                                     | 1   | 13 x 3          | $\frac{1 \cdot 25 \times 2}{2}$ | $\frac{1 \cdot 25 \times 5236}{2}$ | 29·86           |
| Total solid feet filling in sand to the filter .... |     |                 |                                 |                                    | <u>1,489·91</u> |

*Cornice to Tower at Top.*

|   | No. | Diameter. |        | Running Feet. |
|---|-----|-----------|--------|---------------|
| Cornice of inlet tower .....                        | 1   | 19        | 3·1416 | 59·69         |
| Total running feet of cornice at top of tower ..... |     |           |        | <u>59·69</u>  |

*Portion of Tower above Cornice.*

|  | No. | Length.                     | Breadth. | Depth. | Solid Feet. | Solid Feet.   |
|--|-----|-----------------------------|----------|--------|-------------|---------------|
| Wall .....   | 1   | 17·5 × 3·1416 × 1·5 × 10·42 |          |        | 859·30      | 859·30        |
| DEDUCT OPENINGS.   |     |                             |          |        |             |               |
| Doors, rectangular parts ....  | 3   | 4                           | 1·5      | 6      | 108·0       |               |
| „ circular parts .   | 3   | Area<br>6·2832              |          | 1·5    | 28·27       |               |
| Large door, rectangular part.  | 1   | 8                           | 1·5      | 4      | 48·0        |               |
| „ circular part ..   | 1   | Area<br>25·1328             |          | 1·5    | 37·69       |               |
| Total deductions.  | ..  | ....                        | ....     | ....   | .....       |               |
| Total solid feet coursed rubble masonry in circular portion of tower above the cornice ..... |     |                             |          |        |             | <u>637·34</u> |

*Roof of Tower.*

|  | No. | Slant Height.   | Perimeter.                         | Square Feet.  |
|--|-----|---|------------------------------------|---------------|
| Roof .....   | 1   | 12·69   | $\frac{22 \times 3 \cdot 1416}{2}$ | } 438·53      |
|  | ∴   | $\frac{22 \times 3 \cdot 1416 \times 12 \cdot 69}{2}$ |                                    |               |
| Total square feet of double tiled teak-wood roof ..... |     |   |                                    | <u>438·53</u> |

*Iron Work.*

|   | No.  | Length.   | Diameter.                  |
|---|------|-----------|----------------------------|
| Tube taken ten feet outside the base of the tower .....   | 1    | 86·5      | 3'                         |
| Pipes by which the water from the reservoir enters the bottom of the tower .....                | 8 {  | each 20   | } 1'                       |
| Tubes in the walls of the tower, eight in number, in the circumference at each length .....     | 72 { | average 5 | } 6"                       |
| Gratings, eight in number, seven of 1 foot in diameter, and one of 3 feet in diameter . . . . . | 8    | .. {      | 7 of 1 foot<br>1 of 3 feet |

## ABSTRACT.

| Quantities. |   | Rs. a. p. |
|-------------|---|-----------|
| 14,157      | Solid feet excavating foundation in sand, gravel, and water, at Rs. 2-8-0 per 100 solid feet .....      | 353 14 9  |
| 5,389       | Solid feet of coursed rubble masonry in foundation of tower, at Rs. 9-8-0 per 100 solid feet .....      | 511 15 3  |
| 928         | Solid feet of roughly-dressed stone and lime in semispherical invert at Rs. 30 per 100 solid feet ..... | 278 6 4   |
| 326         | Solid feet of cut-stone masonry in domed stone floor, at Rs. 0-9-0 per 100 solid feet.....              | 183 6 0   |

## ABSTRACT—(continued).

| Quantities. |   | Rs. a. p.   |
|-------------|---|-------------|
| 12,816      | Solid feet of cut-stone masonry in walls of tower, at Rs. 45 per 100 solid feet (coursed rubble masonry faced with cut-stone on both sides) ..... | 5,767 3 2   |
| 44          | Number of cut-stone steps in the interior of the tower, at Rs. 2-4-0 per step .....   | 99 0 0      |
| 741         | Solid feet filling in with dry stone, to the base of the tower, at Rs. 2-8-0 per 100 solid feet .....   | 18 8 4      |
| 1,489       | Solid feet filling in with fine and coarse sand to the base of the tower, at Rs. 4-8-0 per 100 solid feet .....                                   | 67 0 0      |
| 59½         | Running feet of cornice round the top of the tower, at Rs. 5-6-0 per foot ....  | 319 13 0    |
| 637         | Solid feet of coursed rubble masonry in wall of circular portion above the cornice, at Rs. 9-8-0 per 100 solid feet .....                         | 60 8 2      |
| 438         | Square feet of roofing of double tiles, teak-wood cut battens, and teak-wood cut rafters, at Rs. 29-8-0 per 100 square feet .....                 | 129 3 4     |
| 1           | Iron tube, 86½ feet long, running down the centre of the tower .....  | 2,448 13 10 |
| 8           | Iron pipes by which the water from the reservoir enters the bottom of the tower .....   | 712 11 0    |
| 72          | Iron tubes in the walls of the tower ....   | 611 12 4    |

## ABSTRACT—(continued).

| Quantities.                            |   | Rs. a. p.  |
|--|---|------------|
| 7                                      | Iron gratings, 1 foot diameter, at Rs. 3 each ..... | 21 0 0     |
| 1                                      | Iron grating, 3 feet diameter, at Rs. 10 each ..... | 10 0 0     |
| Total .. .. . Rs..                     |   | 11,593 3 2 |
| Contingencies, at 5 per cent.....      |   | 579 10 6   |
| Total amount for inlet tower..... Rs.. |   | 12,172 0 0 |

## No. 5.—GANGWAY.

*Excavating Foundation.*

|  | No. | Length. | Breadth. | Depth. | Solid Feet. |
|--|-----|---------|----------|--------|-------------|
| For pier.....  | 1   | 22      | 16       | 10     | 3,520       |
| Total solid feet excavating foundation in sand, gravel, and water..... |     |         |          |        | 3,520       |

*Filling in Foundation of Uncoursed Rubble Masonry.*

|   | No. | Length.                       | Breadth.         | Depth. | Solid Feet. |
|---|-----|-------------------------------|------------------|--------|-------------|
| Abutment in embankment, off-set of .....                                  | 1   | 13                            | 7·0              | 1      | 91          |
| Do. do. ....  | 1   | 11                            | 5·0              | 1      | 55          |
| Centre pier, 1st offset .....   | 1   | 22                            | 16               | 2      | 704         |
| Do. upper offset ....   | 1   | <sup>2</sup> $\frac{0+13}{2}$ | $\frac{14+7}{2}$ | 8      | 173·25      |
| Total solid feet filling in foundations of uncoursed rubble masonry ..... |     |                               |                  |        | 1,023·25    |

*Superstructure of Piers and Abutment.*

|   | No. | Length. | Breadth. | Depth. | Solid Feet. |
|---|-----|---------|----------|--------|-------------|
| Centre pier, portion over footings .....  | 1   | 12      | 6        | 19·5   | 1,423·5     |
| Do. middle do..   | 1   | 11      | 5        | 20·0   | 1,100·0     |
| Do. upper do..  | 1   | 10      | 4        | 17·0   | 680·0       |
| Abutment in embankment ..   | 1   | 10      | 4        | 12·0   | 480·0       |
| Total solid feet in superstructure in pier and abutment of coursed rubble masonry ..... |     |         |          |        | 3,683·5     |

## WOODWORK.

*(The whole Framing taken.)*

## TEAKWOOD.

|  | No. | Length. | Breadth. | Thickness. | Solid Feet. |
|--|-----|---------|----------|------------|-------------|
| Lower chord pieces (taken as one beam) ..... | 2   | 180'    | 14"      | 10"        | 350·00      |
| Upper do. (do) ....                          | 2   | 180'    | 15"      | 7½"        | 281·25      |
| Main braces .....                            | 96  | 9¾'     | 5½"      | 5"         | 178·75      |
| Counter braces .....                         | 48  | 9¾'     | 5"       | 5"         | 81·25       |
| Lateral braces .....                         | 46  | 9'      | 8"       | 3"         | 69·00       |
| Caps on pier .....                           | 2   | 8¾'     | 14"      | 10"        | 17·01       |
| Ditto. ....                                  | 2   | 11¾'    | 14"      | 10"        | 22·84       |
| Caps on tower and abutment in embankment ..  | 4   | 11¾'    | 14"      | 10"        | 45·69       |
| Struts .....                                 | 4   | 11'     | 14"      | 6"         | 25·66       |
| Planking .....                               | 1   | 180'    | 8"       | 3½"        | 420·00      |
| End panels, posts .....                      | 16  | 7½'     | 5"       | 6"         | 24·16       |
| Do. counter braces..                         | 4   | 7½"     | 5"       | 5"         | 5·03        |

## WOODWORK—(continued).

|   | No. | Length.           | Breadth.          | Thickness.        | Solid Feet. |
|---|-----|-------------------|-------------------|-------------------|-------------|
| End panels, main braces ..                        | 8   | 7 $\frac{1}{4}$ ' | 5 $\frac{1}{2}$ " | 5"                | 11·07       |
| Do. pieces to receive<br>the feet of ditto.....   | 4   | 3 $\frac{2}{3}$ ' | 14"               | 4"                | 5·70        |
| Side planking .....                               | 2   | 180'              | 9"                | 2"                | 45·00       |
| Solid feet .....                                  | ..  | ....              | ....              | ....              | 1,582·41    |
| Add $\frac{1}{5}$ th for wastage.....             | ..  | ....              | ....              | ....              | 316·48      |
| Total teak-wood, solid feet.                      | ..  | ....              | ....              | ....              | 1,898·89    |
| BABOOL WOOD.                                      |     |                   |                   |                   |             |
| Tongues between timbers of<br>lower chord .....   | 72  | 6"                | 2 $\frac{1}{2}$ " | 10"               | 6·25        |
| Tongues between timbers of<br>upper chord .....   | 104 | 6"                | 2 $\frac{1}{2}$ " | 7 $\frac{1}{2}$ " | 6·77        |
| Lower chord, pieces at joints<br>of timbers ..... | 68  | 4'                | 3"                | 10"               | 56·66       |
| Solid feet.....                                   |     |                   |                   |                   | 69·68       |
| Add $\frac{1}{5}$ th for wastage .....            |     |                   |                   |                   | 13·93       |
| Total babool-wood solid feet .....                |     |                   |                   |                   | 83·61       |

## IRON WORK.

## Castings.

|  | No. | Length. | Breadth.          | Depth.             | Pounds<br>Avoirdupois. |
|--|-----|---------|-------------------|--------------------|------------------------|
| Lower chord angle blocks, each<br>45 lbs. .... | 46  | 16"     | 7 $\frac{1}{2}$ " | 14 $\frac{1}{8}$ " | 2,070·00               |
| Upper chord angle blocks, each<br>40 lbs. .... | 66  | 16"     | 7 $\frac{1}{2}$ " | 11 $\frac{5}{8}$ " | 1,840·00               |
| Total lbs. of iron castings.....               |     |         |                   |                    | 3,910·00               |



*Wrought Iron (round)*

|  | No  | Length. | Total<br>Length in<br>feet | Size   | Tabular<br>Number. | Ounces<br>Avondupois. |
|--|-----|---------|----------------------------|--------|--------------------|-----------------------|
| Lateral brace bolts ..   | 24  | 8½'     | 20 1'                      | 1"     | 41·740             | 8,514 96              |
| Bolts for chord pieces<br>(lower chord) .. }                       | 104 | 1'7"    | 164·66                     | ½"     | 10 435             | 1,703·40              |
| Bolts for chord pieces<br>(upper chord) .. }                       | 104 | 1'7'    | 164 66                     | ½"     | 10 135             | 1,703·40              |
| Suspension bolts be-<br>tween chords . .. }                        | 100 | 8½'     | 850'                       | 1"     | 11·740             | 35,479·00             |
| At the intersection of<br>main and counter<br>braces .....         | 52  | 1'7"    | 82 33                      | ½"     | 10·435             | 859·11                |
| <i>Flat.</i>   |     |         |                            |        |                    |                       |
| Nuts for lateral brace<br>bolts ....                               | 48  | 2'      | 8'                         | 2'×1½" | 159·436            | 1,275·48              |
| Nuts for bolts to upper<br>and lower chords . }                    | 208 | 1½"     | 26'                        | 1½"×1" | 79 718             | 2,072·66              |
| Nuts for suspension bolts  | 200 | 2"      | 33' 33                     | 2"×1½" | 159 436            | 5,314 00              |
| Nuts at the intersection<br>of main and coun-<br>ter braces .... } | 52  | 1½"     | 6'5                        | 1½"×1" | 79·718             | 518·16                |
| Iron plates at top and<br>bottom of suspen-<br>sion bolts .... }   | 100 | 16"     | 133'33                     | 3½"×½" | 93·004             | 12,400·22             |
| Washers .....  | 284 | 2½"     | 59·16                      | 2½"×½" | 33·216             | 1,965·05              |

Total weight in ounces ..... 71,805·44

Total lbs. of wrought-iron work..... 4,487·00

*Spikes and Nails.*

|   | No. | Length. | Pounds. |
|---|-----|---------|---------|
| 5-inch spikes .....                       | 900 | 5"      | 60·00   |
| Nails of sorts .....                      | 500 | Sorts.  | 40·00   |
| Total lbs. weight of spikes and nails.... |     |         | 100·00  |

*Labour.*

|                            | Days. | Total Days. |
|----------------------------|-------|-------------|
| Carpenters, 1st sort ..... | 450   | 450         |
| Do. 2nd sort .....         | 850   | 850         |
| Labourers under do. ....   | 1750  | 1750        |

*Scaffolding.*

|                                      | Number. |
|--------------------------------------|---------|
| Scaffolding (360 running feet) ..... | 1       |
| Total No. of scaffolding .....       | 1       |

## ABSTRACT.

| Quantities. |   | Rs. a. p. |
|-------------|---|-----------|
| 3,520       | Solid feet excavating foundation in sand, gravel, and water, at Rs. 2-8-0 per 100 solid feet .....              | 88 0 0    |
| 1,023       | Solid feet filling in foundation of uncoursed rubble masonry, at Rs. 8 per 100 solid feet .....                 | 81 13 5   |
| 3,683       | Solid feet in superstructure of pier and abutment of coursed rubble masonry, at Rs. 15 per 100 solid feet ..... | 552 7 2   |
| 1,898       | Solid feet of teak-wood in woodwork, at Rs. 2-15-2 per foot .....   | 5,595 2 4 |

## ABSTRACT—(continued).

| Quantities.                            |   | Rs.   | a. | p. |
|--|---|-------|----|----|
| 83                                     | Solid feet of babool-wood in woodwork, at<br>Rs. 0-12-0 per foot .....            | 62    | 4  | 0  |
| 3,910                                  | Pounds of iron castings at Rs. 13-2-9<br>per cwt.....                             | 459   | 13 | 5  |
| 4,487                                  | Pounds of wrought-iron in bolts, nuts,<br>washers, &c., at Rs. 6 per 28 lbs. .... | 961   | 8  | 0  |
| 100                                    | Pounds of spikes and nails of sorts, at<br>Rs. 1 per 7 lbs .....                  | 14    | 4  | 6  |
| 450                                    | Days carpenters' hire, at Rs. 0-8-0 per day.                                      | 225   | 0  | 0  |
| 850                                    | Days do. at Rs. 0-6-0 per day.  | 318   | 12 | 0  |
| 1,750                                  | Days labourers' hire at Rs. 0-2-0 per day.  | 218   | 12 | 0  |
| 1                                      | Scaffolding .....   | 72    | 0  | 0  |
| Total ....Rs...                        |   | 8,649 | 12 | 10 |
| Add contingencies, at 5 per cent. .... |   | 432   | 7  | 10 |
| Total amount for gangway .....Rs..     |   | 9,082 | 0  | 0  |

## No. 6.—MASONRY AQUEDUCT MEASUREMENTS.

*Excavating Trench for the Aqueduct.*

|  | No. | Length. | Breadth. | Depth. | Solid Feet. |
|--|-----|---------|----------|--------|-------------|
| For that portion of the aqueduct, from the inlet tower to the mouth of the tunnel, on the Ambeygaum side,... | ... | ....    | ....     | ....   | 8,05,510    |

MASONRY AQUEDUCT, &c.—(*continued.*)

|   | No. | Length. | Breadth. | Depth. | Solid Feet. |
|---|-----|---------|----------|--------|-------------|
| For that portion of the aqueduct from the chambered shaft No. 1 to the distribution reservoir in the camp | .   | .....   | .....    | .....  | 7,57,231    |
| Total solid feet excavating trench for the masonry aqueduct .....   |     |         |          |        | 15,62,741   |
| 1-5th do. taken in soft rock .....  |     |         |          |        | 3,12,548    |
| 4-5ths do. taken in moorum .....  |     |         |          |        | 12,50,193   |
| Total solid feet.....   |     |         |          |        | 15,62,741   |

*Excavation for the Air-Shafts of the Aqueduct.*

|  | No. | Length. | Breadth. | Depth. | Solid Feet. |
|--|-----|---------|----------|--------|-------------|
| Air-shafts .....   | 66  | 6·5     | 6·5      | 2      | 5,577       |
| Total solid excavation for the air-shafts of the aqueduct .. |     |         |          |        | 5,577       |
| 1-5th do. taken in soft rock .....                           |     |         |          |        | 1,115·4     |
| 4-5ths do. taken in moorum .....                             |     |         |          |        | 4,461·6     |
| Total solid feet .....                                       |     |         |          |        | 5,577·0     |

*Building Aqueduct, Interior Measurement 18 × 15 inches, slab-top.*

|   | No. | Length. | Breadth. | Depth. | Solid Feet. |
|---|-----|---------|----------|--------|-------------|
| Total length . . . . . Feet 31,367·5  |     |         |          |        |             |
| DUCT:—  |     |         |          |        |             |
| Portion under the embankment . . . . . Feet 335 0   |     |         |          |        |             |
| Raised portion . . . 1,147·5  |     |         |          |        |             |
| Portions included in the air-shafts.. . 396 0   |     |         |          |        |             |
| 1,878·5   |     |         |          |        |             |
| 32,489·0  |     |         |          |        |             |
| Sill of aqueduct . . . . .  | 1   | 32,489  | 4        | 1      | 1,29,956·0  |
| Sides of do. . . . .  | 2   | 32,489  | 1        | 1·25   | 81,222·5    |
| Top of do. . . . .  | 1   | 32,489  | 3½       | 1      | 1,13,711·5  |
| Sills of air-shafts . . . . .   | 66  | 6·5     | 6·5      | 1      | 2,788·5     |
| Superstructure of air-shafts . .  | 66  | 18      | 1½       | 8      | 14,256·0    |
| Total solid feet building aqueduct of coursed rubble masonry, interior measurement 18 × 15 inches . . . . } |     |         |          |        | 3,41,934·5  |

*Covering Mouths of Air-Shafts with Stone Slabs set in Lime.*

|   | No. | Length. | Breadth. | Depth. | Square Feet. |
|---|-----|---------|----------|--------|--------------|
| Mouths of air-shafts . . . . .  | 66  | 4       | 4        | 6"     | 1,056        |
| Total square feet of covering mouths of air-shafts with stone slabs set in lime . . . . . } |     |         |          |        | 1,056        |

*Building Aqueduct, Interior Measurement 15" × 18". Portion passing under the Embankment.*

|   | No. | Length. | Breadth.                               | Depth. | Solid Feet.          | Total Solid Feet. |
|---|-----|---------|--|--------|----------------------|-------------------|
| Filling in foundation .....   | 1   | 335     | 4                                      | 1      | 1,340·0              | 4,857·5           |
| Superstructure, taken as a whole ..   | 1   | 335     | 3½                                     | 3      | 3,517·5 <sup>*</sup> |                   |
| DEDUCT :—   |     |         |  |        |                      |                   |
| Open portion of aqueduct .....  | 1   | 335     | 1·5                                    | 1·25   | 628·125              | 924·12            |
| Do. do. ....  | 1   | 335     | $\frac{1\cdot5^2}{2} \times \cdot7854$ |        | 295·997              |                   |
| Total solid feet of coursed rubble masonry in building that portion of the aqueduct passing under the embankment, with an arched head ..... |     |         |  |        |                      | 3,933·38          |

*Raising a Portion of the Aqueduct near the Distribution Reservoir.*

|   | No. | Length. | Breadth. | Depth. | Solid Feet. |
|---|-----|---------|----------|--------|-------------|
| Excavating foundation .....                           | 1   | 1,147·5 | 4·5      | 1·5    | 7,745·62    |
| Total solid feet excavating foundation in moorum .... |     |         |          |        | 7,745·62    |

*Building Raised Portion of Coursed Rubble Masonry.*

|   | No. | Length. | Breadth. | Depth.                                | Solid Feet. |
|---|-----|---------|----------|---------------------------------------|-------------|
| Foundation, same as excavation above .....                  | ..  | .....   | .....    | .....                                 | 7,745·62    |
| 1st portion .....   | 1   | 46      | 4        | $\frac{4 \cdot 40}{2}$                | 404·80      |
| 2nd do. ....  | 1   | 50      | 4        | $\frac{4 \cdot 40 + 8 \cdot 80}{2}$   | 1,326·00    |
| 3rd do. ....  | 1   | 50      | 4        | $\frac{8 \cdot 72 + 8 \cdot 86}{2}$   | 1,758·00    |
| 4th do. ....  | 1   | 100     | 4        | $\frac{11 \cdot 18 + 8 \cdot 72}{2}$  | 3,980·00    |
| 5th do. ....  | 1   | 130     | 4        | $\frac{15 \cdot 05 + 11 \cdot 18}{2}$ | 7,053·80    |
| 6th do. ....  | 1   | 53      | 4        | $\frac{13 \cdot 78 + 15 \cdot 05}{2}$ | 3,151·38    |
| 7th do. ....  | 1   | 95      | 4        | $\frac{7 \cdot 50 + 13 \cdot 78}{2}$  | 4,043·20    |
| 8th do. ....  | 1   | 52½     | 4        | $\frac{2 \cdot 25 + 7 \cdot 50}{2}$   | 1,023·75    |
| 9th do. ....  | 1   | 97      | 4        | $\frac{2 \cdot 42 + 2 \cdot 25}{2}$   | 905·98      |
| 10th do. ....   | 1   | 93      | 4        | $\frac{0 \cdot 40 + 2 \cdot 42}{2}$   | 1,651·68    |
| 11th do. ....   | 1   | 32      | 4        | $\frac{0 \cdot 40 + 0 \cdot 40}{2}$   | 823·04      |
| 12th do. ....   | 1   | 50      | 4        | $\frac{5 \cdot 34 + 0 \cdot 40}{2}$   | 1,174·00    |
| 13th do. ....   | 1   | 50      | 4        | $\frac{0 \cdot 72 + 5 \cdot 34}{2}$   | 1,206·00    |
| 14th do. ....   | 1   | 46      | 4        | $\frac{11 \cdot 13 + 0 \cdot 72}{2}$  | 1,642·20    |
| 15th do. ....   | 1   | 54      | 4        | $\frac{11 \cdot 13 + 13 \cdot 57}{2}$ | 2,667·60    |
| 16th do. ....   | 1   | 44      | 4        | $\frac{0 \cdot 10 + 13 \cdot 57}{2}$  | 2,002·88    |
| 17th do. ....   | 1   | 56      | 4        | $\frac{0 \cdot 14 + 0 \cdot 10}{2}$   | 1,716·96    |
| 18th do. ....   | 1   | 49      | 4        | $\frac{2 \cdot 25 + 0 \cdot 14}{2}$   | 822·22      |
| Total solid feet ....                                       | ..  | .....   | .....    | .....                                 | 45,099·11   |
| Deduct,—opening of aqueduct .....                           | 1   | 1,147·5 | 1·5      | 1·25                                  | 2,151·56    |
| Total solid feet coursed rubble masonry in raising aqueduct |     |         |          |                                       | 42,947·55   |

*Filling in Trench over Aqueduct.*

|  | Area.                                  | Solid Feet. |
|--|--|-------------|
| Solid feet of excavation in trench as above                                | ....                                   | 15,62,741   |
| Deduct,—solid feet of masonry work of<br>the aqueduct, taken as area ..... | $4 \times 3 \frac{1}{4} \times 32,489$ | 4,22,357    |
| Total solid feet.....  |  | 11,40,384   |
| Half do. ....  |  | 5,70,192    |
| Solid feet of half filling into trench .....                               |  | 5,70,192    |

## ABSTRACT.

| Quantities. |   | Rs. a. p.  |
|-------------|---|------------|
| 3,12,548    | Solid feet of excavating trench for masonry aqueduct in soft rock, at Rs. 2 per 100 solid feet .....                                    | 6,250 15 4 |
| 12,50,193   | Solid feet of excavating trench for masonry aqueduct in moorum, at Rs. 0-10-6 per 100 solid feet .....                                  | 8,204 6 3  |
| 1,115       | Solid feet of excavating bottoms of airshafts in soft rock, at Rs. 2 per 100 solid feet .....   | 22 4 9     |
| 4,461       | Solid feet of excavating bottoms of airshafts in moorum, at Rs. 0-10-6 per 100 solid feet .....   | 29 4 4     |
| 3,41,934    | Solid feet of building aqueduct of coursed rubble masonry (18 × 15 inches interior measurement), at Rs. 10-8-0 per 100 solid feet ..... | 35,903 1 1 |



## ABSTRACT—(continued).

| Quantities.  |  | Rs. a. p.   |
|--|--|-------------|
| 1,056  | Square feet covering mouths of air-shafts with slab stones set in lime, at Rs. 15-10-0 per 100 square feet . . . . .   | 165 0 0     |
| 3,933  | Solid feet of building aqueduct of coursed rubble masonry (18" × 15" inches interior measurement, arched head), being the portion passing under the embankment, at Rs. 10-8-0 per 100 solid feet.. | 412 15 5    |
| 7,745  | Solid feet excavating foundation in moorum for the raised portion of the aqueduct, at Rs. 0-10-6 per 100 solid feet..  | 50 13 2     |
| 42,947   | Solid feet building raised portion of the aqueduct of coursed rubble masonry, at Rs. 10-8-0 per 100 solid feet . . . . .   | 4,509 6 11  |
| 5,70,192   | Solid feet filling in trench over aqueduct, at Rs. 0-1-6 per 100 solid feet . . . . .  | 534 8 10    |
| Total . . . . . Rs...  |  | 56,082 12 1 |
| Contingencies, at 5 per cent. . . . .  |  | 2,804 2 2   |
| Total amount for portion of masonry aqueduct 15" × 18" inches interior measurement ..Rs... |  | 58,886 0 0  |

## TUNNEL.

*Excavation.*

|  | No. | Length. | Breadth. | Depth. | Solid Feet. |
|--|-----|---------|----------|--------|-------------|
| Shaft at the mouth of the tunnel on the Ambeygaum side, No. 8 of Plan No. 7. . . . . | 1   | 14      | 14       | 61     | 11,956·00   |

## TUNNEL—(continued).

*Excavation.*

|  | No. | Length.                               | Breadth.                     | Depth.    | Solid Feet. |           |
|--|-----|---------------------------------------|------------------------------|-----------|-------------|-----------|
| Air-shaft of tunnel, No. 7 of  |     |                                       |                              |           |             |           |
| Plan No. 7, 1st portion ..   | 1   | 8 <sup>2</sup><br><small>dia.</small> | ·7854                        | 20        | 1,005·31    |           |
| Do. 2nd do.● ..  | 1   | 4 <sup>2</sup>                        | ·7854                        | 83        | 1,043·01    |           |
| Air-shaft of tunnel, No. 6 of  |     |                                       |                              |           |             |           |
| Plan No. 7, 1st portion ..   | 1   | 8 <sup>2</sup>                        | ·7854                        | 20        | 1,005·31    |           |
| Do. 2nd do. ..   | 1   | 4 <sup>2</sup>                        | ·7854                        | 74·5      | 936·19      |           |
| Shaft at the mouth of the tunnel on the Duncowree side, No. 5 of Plan No. 7 .....                        | 1   | 14·5                                  | 14·5                         | 65·75     | 13,823·93   |           |
| Tunnel. Portion revetted for a length of 20 feet from the mouths at each end. Fig. 3 of Plan No. 7 ..... | 2   | 20                                    | 39·38<br><small>area</small> | 60,962·77 | 1,575·20    |           |
| Tunnel. Portion unrevetted. Fig. 2 Plan No. 7 (2,781½—   |     |                                       |                              |           |             |           |
| <small>Two shafts. Two revetted parts.</small><br>(14 + 14½ —20—20  = 2713..                             | 1   | 2713                                  | 21·89<br><small>area</small> |           |             | 59,387·57 |
| Total solid feet excavation for tunnel .....   |     |                                       |                              |           | 90,732·52   |           |
| Total solid feet excavating tunnel in rock.....  |     |                                       |                              |           | 60,962·77   |           |
| Total solid feet excavating shafts to tunnel in rock (1-3rd of the rest) .....                           |     |                                       |                              |           | 9,923·25    |           |
| Total solid feet do. in hard moorum (2-3rds of the rest) .....   |     |                                       |                              |           | 19,846·50   |           |
| Total solid feet.....  |     |                                       |                              |           | 90,732·52   |           |

*Coursed Rubble Masonry in Entrance and Air-Shafts and  
Rectment to Mouths of Tunnel for a Length of 20 Feet.*

|  | No. | Length | Breadth. | Depth. | Solid Feet. |
|--|-----|--------|----------|--------|-------------|
| Entrance to tunnel. Shaft on<br>the Ambeygaum side. No. 8<br>of Plan No. 7. 1st portion .. | 1   | 36     | 5        | 5      | 900 00      |
| 2nd portion .....  | 1   | 35     | 4 75     | 5      | 831 25      |
| 3rd do. ....   | 1   | 34     | 4 5      | 5      | 765 00      |
| 4th do. ....   | 1   | 33     | 4 25     | 5      | 701 25      |
| 5th do. ....   | 1   | 32     | 4 0      | 5      | 640 00      |
| 6th do. ....   | 1   | 31     | 3 75     | 5      | 581 25      |
| 7th do. ....   | 1   | 30     | 3 5      | 5      | 525 00      |
| 8th do. ....   | 1   | 29     | 3 25     | 5      | 471 25      |
| 9th do. ....   | 1   | 28     | 3 0      | 5      | 420 00      |
| 10th do. ....  | 1   | 27     | 2 75     | 5      | 371 25      |
| 11th do. ....  | 1   | 26     | 2 5      | 5      | 325 00      |
| 12th do. ....  | 1   | 25     | 2 25     | 6      | 337 50      |
| 13th do. ....  | 1   | 24     | 2 0      | 4      | 192 00      |
| Entrance to tunnel. Shaft on<br>the Duncowree side. No. 5<br>of Plan No. 7. 1st portion .. | 1   | 37     | 5 25     | 5      | 971 25      |
| 2nd portion .....  | 1   | 36     | 5 0      | 5      | 900 00      |
| 3rd do. ....   | 1   | 35     | 4 75     | 5      | 831 25      |
| 4th do. ....   | 1   | 34     | 4 5      | 5      | 765 00      |
| 5th do. ....   | 1   | 33     | 4 25     | 5      | 701 25      |
| 6th do. ....   | 1   | 32     | 4 0      | 5      | 640 00      |
| 7th do. ....   | 1   | 31     | 3 75     | 5      | 581 25      |
| 8th do. ....   | 1   | 30     | 3 5      | 5      | 525 00      |
| 9th do. ....   | 1   | 29     | 3 25     | 5      | 471 25      |
| 10th do. ....  | 1   | 28     | 3 0      | 5      | 420 00      |
| 11th do. ....  | 1   | 27     | 2 75     | 5      | 371 25      |

*Coursed Rubble Masonry in Entrance, &c.—(continued.)*

|  | No. | Length. | Breadth.                             | Depth. | Solid Feet. |
|--|-----|---------|--------------------------------------|--------|-------------|
| 12th portion .....   | 1   | 26      | 2·5                                  | 5      | 325·00      |
| 13th do. ....  | 1   | 25      | 2·25                                 | 4·75   | 267·18      |
| 14th do. ....  | 1   | 24      | 2·0                                  | 4·0    | 192·00      |
| Revetting mouths of tunnel ..  | 2   | 20      | .. } <small>area<br/>30·38</small> } | .. }   | 699·60      |
| Masonry work to the mouths<br>of air-shafts, Nos. 6 and 7 of<br>Plan No. 7 .....   | 2   | 18·849  | 2                                    | 24     | 1,809·50    |
| Total solid feet of coursed rubble masonry in entrance and<br>air-shafts to tunnel, and revetting tunnel for a distance<br>on each side of 20 feet ..... |     |         |                                      |        | 17,531·53   |

*Doors to Shafts.*

|   | No. |
|---|-----|
| Doors of teak-wood plank batten .....                 | 4   |
| Total No. of teak-wood plank batten doors to shafts.. | 4   |

## ABSTRACT.

| Quantities. |   | Rs. a. p. |
|-------------|---|-----------|
| 60,962      | Solid feet excavating tunnel in rock, at<br>Rs. 12 per 100 solid feet .....                               | 7,315 7 0 |
| 9,923       | Solid feet excavating entrance and air-<br>shafts to tunnel in rock, at Rs. 4 per<br>100 solid feet ..... | 396 14 8  |

## ABSTRACT—(continued).

| Quantities.                                 |  | Rs. a. p.   |
|---|--|-------------|
| 19,846                                      | Solid feet excavating entrance and air-shafts to tunnel in hard moorum, at Rs. 0-14-0 per 100 solid feet . . . . .   | 173 10 5    |
| 17,531                                      | Solid feet of coursed rubble masonry in entrance and air-shafts to tunnel, and the revetment to the tunnel for a length of 20 feet at each mouth, at Rs. 15 per 100 solid feet . . . . . | 2,629 10 4  |
| 4   | No. of doors to mouths of shafts of teak-wood plank batten, at Rs. 16 each door . . . . .  | 64 0 0      |
| Total . . . Rs. . . .                       |  | 10,579 10 5 |
| Contingencies, at 5 per cent. . . . .       |  | 528 15 8    |
| Total amount for tunnel . . . . . Rs. . . . |  | 11,108 0 0  |

*Masonry Aqueduct  $4\frac{1}{2}' \times 3'$  Interior Measurement,  
with Arched Head.*

## MEASUREMENTS.

*Excavation of Trench for Aqueduct.*

|  | No. | Length. | Breadth. | Depth. | Solid Feet. |
|--|-----|---------|----------|--------|-------------|
| For that portion of the aqueduct from the mouth of the tunnel on the Duncowree side to the first chambered shaft, that is, between Nos. 1 and 5 of Plan No. 8. . . . . | ..  | ....    | ....     | ....   | 21,56,874   |
| Solid feet of excavating trench for aqueduct. . . .  |     |         |          |        | 21,56,874   |

*Masonry Aqueduct  $4\frac{1}{2}' \times 3'$ —(continued).*

|   | Solid Feet. |
|---|-------------|
| 1-10th solid feet of excavation taken in rock . . . . . | 2,15,687    |
| 1-10th do. taken in soft rock . . . .                   | 2,15,687    |
| 4-5ths do. taken in moorum . . . .                      | 17,25,500   |
| Total solid feet..                                      | 21,56,874   |

*Excavating Bottom of Chambered Shafts, below Sill of Aqueduct.*

|  | No. | Length. | Breadth. | Depth. | Solid Feet. |
|--|-----|---------|----------|--------|-------------|
| No. 4 of Plan No. 7 . . . . .  | 1   | 16      | 10·5     | 2      | 336·00      |
| No. 3 of do. . . . .   | 1   | 15·5    | 10·5     | 2      | 310·00      |
| No. 2 of do. . . . .   | 1   | 14·5    | 9·5      | 2      | 275·50      |
| No. 1 of do. . . . .   | 1   | 13·5    | 8·5      | 2      | 229·50      |
| Total solid feet of excavation in rock for bottoms of chambered shafts, below the sill of the aqueduct . . . . . |     |         |          |        | 1,151·00    |

*Building Chambered Shafts Nos. 1, 2, 3, and 4, of Coursed Rubble Masonry faced with Cut-Stone.*

|  | No. | Length. | Breadth. | Depth. | Solid Feet. |
|--|-----|---------|----------|--------|-------------|
| No. 4 of Plan No. 7. Foundation . . . . .            | 1   | 16      | 10·5     | 1      | 168·00      |
| 1st portion of side walls above foundation . . . . . | 1   | 37      | 3·5      | 5      | 647·50      |

*Building Chambered Shafts, &c.—(continued.)*

|  | No. | Length. | Breadth. | Depth. | Solid Feet. |
|--|-----|---------|----------|--------|-------------|
| 2nd portion of side walls, &c.                   | 1   | 36      | 3·25     | 5      | 585·00      |
| 3rd do. do. ....                                 | 1   | 35      | 3·0      | 5      | 525·00      |
| 4th do. do. ....                                 | 1   | 34      | 2·75     | 5      | 467·50      |
| 5th do. do. ....                                 | 1   | 33      | 2·5      | 5      | 412·50      |
| 6th do. do. ....                                 | 1   | 32      | 2·25     | 5      | 360·00      |
| 7th do. do. ....                                 | 1   | 31      | 2·0      | 3      | 186·00      |
| Division wall .....                              | 1   | 3       | 2·5      | 33     | 247·50      |
| No. 3 of Plan No. 7. Foundation .....            | 1   | 15·5    | 10·0     | 1      | 155·00      |
| 1st portion of side walls above foundation ..... | 1   | 36      | 3·25     | 5      | 585·00      |
| 2nd do. do. ....                                 | 1   | 35      | 3·0      | 5      | 525·00      |
| 3rd do. do. ....                                 | 1   | 34      | 2·75     | 5      | 467·50      |
| 4th do. do. ....                                 | 1   | 33      | 2·5      | 5      | 412·50      |
| 5th do. do. ....                                 | 1   | 32      | 2·25     | 5      | 360·00      |
| 6th do. do. ....                                 | 1   | 31      | 2·0      | 5      | 310·00      |
| Division wall .....                              | 1   | 3       | 2·5      | 30     | 225·00      |
| No. 2 of Plan No. 7. Foundation .....            | 1   | 14·5    | 9·5      | 1      | 137·75      |
| 1st portion of side walls above foundation ..... | 1   | 34      | 3·0      | 5      | 510·00      |
| 2nd do. do. ....                                 | 1   | 33      | 2·75     | 5      | 453·75      |
| 3rd do. do. ....                                 | 1   | 32      | 2·5      | 5      | 400·00      |
| 4th do. do. ....                                 | 1   | 31      | 2·25     | 3·75   | 261·56      |
| 5th do. do. ....                                 | 1   | 30      | 2·0      | 3·0    | 180·00      |
| Division wall .....                              | 1   | 3       | 2·5      | 21·75  | 163·12      |
| No. 1 of Plan No. 7. Foundation .....            | 1   | 13·5    | 8·5      | 1      | 114·75      |
| 1st portion of side walls above foundation ..... | 1   | 32      | 2·5      | 5      | 400·00      |

*Building Chambered Shafts, &c.—(continued.)*

|  | No. | Length. | Breadth. | Depth. | Solid Feet. |
|--|-----|---------|----------|--------|-------------|
| 2nd portion of side walls, &c.   | 1   | 31      | 2.25     | 5      | 348.75      |
| 3rd do. do. ....   | 1   | 30      | 2.0      | 4      | 240.00      |
| Division wall .....  | 1   | 2       | 3        | 14     | 84.0        |
| Total solid feet of coursed rubble masonry, faced with cut-stone to four chambered shafts..... |     |         |          |        | 9,932.68    |

*Building Aqueduct, Arched Head Interior Measurement 3' × 4½'.*

|   | No. | Length. | Breadth.               | Depth. | Solid Feet. |
|---|-----|---------|------------------------|--------|-------------|
| Foundation, total length 3,967.   | 1   | 3,910.5 | 6.5                    | 1      | 25,418.25   |
| Deduct spaces occupied by chambered shafts Nos. 1, 2, 3, and 4 = 12.75 + 13.75 + 14.75 + 15.25 = 3,967—           |     |         |                        |        |             |
| 56.5 = 3,910.5 .....  |     |         |                        |        |             |
| Side walls .....  | 2   | 3,190.5 | 1.5                    | 3      | 35,194.50   |
| Arching .....   | 1   | 3,910.5 | length of arc<br>6.283 | 1      | 24,569.67   |
| Backing to arching .....  | 2   | 3,910.5 | area<br>1.5            | ..     | 11,731.5    |
| Total solid feet of coursed rubble masonry, including arched head in aqueduct 3' × 4½' interior measurement ..... |     |         |                        |        | 96,913.92   |

*Filling in Trench over Aqueduct.*

|  | No. | Length. | Breadth. | Depth. | Solid Feet. | Total Solid Feet. |
|--|-----|---------|----------|--------|-------------|-------------------|
| Solid feet of excavation, as above ..... | ..  | ....    | ....     | ....   | 21,56,874   | 21,56,874.0       |



*Filling in Trench over Aqueduct—(continued).*

|   | No. | Length. | Breadth.   | Depth.              | Solid Feet. | Total Solid Feet. |
|---|-----|---------|------------|---------------------|-------------|-------------------|
| Brought forward . . .   | ..  | ....    | ....       | ....                | .....       | 21,56,874·0       |
| DEDUCT :—   |     |         |            |                     |             |                   |
| Solid feet of masonry work of the aqueduct. (Taken as a rectangle). | 1   | 3,910·5 | area<br>39 |                     | 1,52,509·5  |                   |
| Do. do. No. 1 chambered shaft . . . .                               | 1   | 13      | 5          | 9·                  | 936·0       |                   |
| Do. do. No. 2 do . . .  | 1   | 14      | 9          | 17·75               | 2,236·5     |                   |
| Do. do. No. 3 do . . .  | 1   | 15      | 9·5        | 19·                 | 2,707·5     |                   |
| Do. do. No. 4 do . . .  | 1   | 15      | 10         | 29·                 | 4,350·0     |                   |
|   |     |         |            |                     |             | 1,62,739·5        |
|   |     |         |            | Total solid feet. . |             | 19,94,134·5       |
|   |     |         |            | Half do. . . .      |             | 9,97,067·25       |
| • Total solid feet of half-filling in trench over aqueduct. . .     |     |         |            |                     |             | 9,97,067·25       |

*Doors.*

|  | No. |
|--|-----|
| Doors of teak-wood plank batten 3' × 3' . . . . .      | 8   |
| Total No. teak-wood plank batten doors 3' × 3' . . . . | 8   |

## ABSTRACT.

| Quantities. |  | Rs. a. p.   |
|-------------|--|-------------|
| 2,15,687    | Solid feet excavating trench for aqueduct in rock, at Rs. 4 per 100 solid feet . . . . | 8,627 7 8   |
| 2,15,687    | Solid feet excavating trench for aqueduct in soft rock, at Rs. 2 per 100 solid feet.   | 4,313 11 10 |

## ABSTRACT—(continued).

| Quantities.  |  | Rs.    | a. | p. |
|--|--|--------|----|----|
| 17,25,500  | Solid feet excavating trench for aqueduct in moorum, at Rs. 0-10-6 per 100 solid feet .....                                    | 11,323 | 9  | 6  |
| 1,151  | Solid feet of excavating bottoms of chambered shafts below the sill of the aqueduct in rock, at Rs. 4 per 100 solid feet ..... | 46     | 0  | 7  |
| 9,932  | Solid feet of coursed rubble masonry faced with cut-stone in chambered shafts, at Rs. 30 per 100 solid feet ..                 | 2,979  | 9  | 7  |
| 96,913   | Solid feet of building aqueduct (3' × 4½' arched head) of coursed rubble masonry, at Rs. 15 per 100 solid feet ..              | 14,536 | 15 | 2  |
| 9,97,067   | Solid feet filling in trench over aqueduct, at Rs. 0-1-6 per 100 solid feet ..   | 934    | 12 | 0  |
| 8  | No. of teak-wood plank batten doors 3' × 3', at Rs. 9 each .....   | 72     | 0  | 0  |
| Total....Rs..  |  | 42,834 | 2  | 4  |
| Contingencies, at 5 per cent....                           |  | 2,141  | 11 | 3  |
| Total amount for aqueduct with head of arched masonry..... |  | 44,975 | 0  | 0  |

\*

## RECAPITULATION.

|   | Rs.    | a. | p. |
|---|--------|----|----|
| Total amount for the portion of masonry aqueduct; rectangular section 18" × 15" interior measurement, including that passing under the embankment ..... | 58,886 | 0  | 0  |

RECAPITULATION — (*continued*).

|  | Rs. a. p.    |
|--|--------------|
| Total amount of tunnel .....   | 11,108 0 0   |
| Total amount for the portion of the masonry aqueduct, circular head $4\frac{1}{2} \times 3$ feet interior measurement..... | 44,975 0 0   |
| Total amount for the masonry aqueduct, including tunnel .....  | 1,14,969 0 0 |

## IRON CONDUIT PIPE 13 INCHES DIAMETER

## MEASUREMENTS.

*Excavating the Trench for the Iron Conduit Pipe.*

|   | No. | Length | Breadth | Depth. | Solid Feet  |
|---|-----|--------|---------|--------|-------------|
| For the whole portion of the trench, from the inlet tower to the distribution reservoir in the camp, excepting that portion occupied by the tunnel .. | 1   | .....  | .....   | .....  | 26,43,179   |
| Total solid feet of excavating trench for the iron conduit pipe .....   |     |        |         |        | 26,43,179   |
| 1-10th solid feet of excavation taken in rock .....   |     |        |         |        | 2,64,317.5  |
| 1-10th do. do. taken in soft rock.....  |     |        |         |        | 2,64,317.5  |
| 4-5ths do. do. taken in moorum.....   |     |        |         |        | 21,14,544.0 |
| Total solid feet....  |     |        |         |        | 26,43,179   |

*Building Chambered Shaft No. 3 of Plans 7 and 8.  
Excavating Foundation.*

|   | No. | Length. | Area. | Solid Feet. |
|---|-----|---------|-------|-------------|
| No. 3 chambered shaft .....   | 1   | 15·5    | 430·5 | 6,672·75    |
| Deduct :—Portion included in the trench .....                                 | 1   | 15·5    | 262·5 | 4,068·75    |
| Total solid feet excavating for the foundation of No. 3 chambered shaft ..... |     |         |       | 2,604·0     |
| 1-10th solid feet excavation taken in rock .....                              |     |         |       | 260·4       |
| 1-10th do. do. taken in soft rock .....                                       |     |         |       | 260·4       |
| 4-5ths do. do. taken in moorum .....  |     |         |       | 2,083·2     |
| Total solid feet . . . . .  |     |         |       | 2,604·0     |

*Coursed Rubble Masonry faced with Cut-Stone in  
No. 3, as above.*

|   | No. | Length. | Breadth. | Depth. | Solid Feet. |
|---|-----|---------|----------|--------|-------------|
| Foundation .....  | 1   | 15·5    | 10       | 1      | 155·0       |
| 1st portion of side walls above foundation .....  | 1   | 36      | 3·25     | 5      | 585·0       |
| 2nd do. do. ....  | 1   | 35      | 3·0      | 5      | 525·0       |
| 3rd do. do. ....  | 1   | 34      | 2·75     | 5      | 467·5       |
| 4th do. do. ....  | 1   | 33      | 2·5      | 5      | 412·5       |
| 5th do. do. ....  | 1   | 32      | 2·25     | 5      | 360·0       |
| 6th do. do. ....  | 1   | 31      | 2·0      | 5      | 310·0       |
| Division wall .....   | 1   | 3       | 2·5      | 30     | 225·0       |
| Total solid feet coursed rubble masonry faced with cut-stone in chambered shaft No. 3 ..... |     |         |          |        | 3,040·0     |

*Iron Pipe 13 Inches Diameter.*

|   | Length. | Running Feet. |
|---|---------|---------------|
| Iron conduit pipe 13 inches diameter . . . . .          | 27,343  | 27,343        |
| Total running feet iron conduit pipe 13 inches diameter |         | 27,343        |

*Filling in Trench over Pipe.*

|  | Solid Feet. |
|--|-------------|
| Same as excavating . . . . .                               | 26,43,179   |
| Total solid feet filling in trench over iron conduit pipe. | 26,43,179   |

## ABSTRACT.

| Quantities. |  | Rs. a. p.    |
|-------------|--|--------------|
| 2,64,317    | Solid feet excavating trench for iron conduit pipe in rock, at Rs. 4 per 100 solid feet . . . . .        | 10,572 10 10 |
| 2,64,317    | Solid feet excavating trench for iron conduit pipe in soft rock, at Rs. 2 per 100 solid feet . . . . .   | 5,286 5 5    |
| 21,14,544   | Solid feet excavating trench for iron conduit pipe in moorum, at Rs. 0-10-6 per 100 solid feet . . . . . | 13,876 11 1  |
| 260         | Solid feet excavating foundation of chambered shaft No. 3 in rock, at Rs. 4 per 100 solid feet . . . . . | 10 6 4       |

## ABSTRACT—(continued).

| Quantities.                                 |  | Rs. a. p.     |
|---|--|---------------|
| 260   | Solid feet excavating foundation of chambered shaft No. 3 in soft rock, at Rs. 2 per 100 solid feet .....                  | 5 3 2         |
| 2,083                                       | Solid feet excavating foundation of chambered shaft No. 3 in moorum, at Rs. 0-10-6 per 100 solid feet .....                | 13 10 8       |
| 3,040                                       | Solid feet coursed rubble masonry faced with cut-stone, at Rs. 30 per 100 solid feet .....                                 | 912 0 0       |
| 27,343                                      | Running feet of iron conduit pipe 13 inches in diameter, at Rs. 4-13-9 per running foot; trenching, &c. not included ..... | 1,32,869 14 3 |
| 26,43,179                                   | Solid feet filling in trench over aqueduct, at Rs. 0-1-6 per 100 solid feet .....  | 2,477 15 8    |
| Total....Rs...                              |  | 1,66,024 13 5 |
| Contingencies, at 5 per cent....            |  | 8,301 3 10    |
| Total amount for iron conduit pipe....Rs... |  | 1,74,326 0 0  |

## RECAPITULATION.

|  | Rs. a. p.    |
|--|--------------|
| Total amount for the iron conduit pipe.....                    | 1,74,326 0 0 |
| Total amount for the tunnel, as before .....                   | 11,108 0 0   |
| Total amount for the iron conduit pipe, including tunnel ..... | 1,85,434 0 0 |

# No. 7.—DISTRIBUTION RESERVOIR. TWO DAYS' SUPPLY.

## MEASUREMENTS.

### *Excavation.*

| Section on D. E. F. G. in the centre.                 |       |                       |        |   | Solid Feet. |
|---|-------|-----------------------|--------|---|-------------|
| 1st portion   | ..... | $\frac{1.00+0.00}{2}$ | × 30   | = | 28.5        |
| 2nd do.   | ..... | $\frac{4.2+1.0}{2}$   | × 12   | = | 36.6        |
| 3rd do.   | ..... | $\frac{7.2+4.2}{2}$   | × 20   | = | 114.0       |
| 4th do.   | ..... | $\frac{7.4+7.2}{2}$   | × 13   | = | 94.9        |
| 5th do.   | ..... | $\frac{8.0+7.4}{2}$   | × 27   | = | 207.9       |
| 6th do.   | ..... | $\frac{9.0+8.0}{2}$   | × 60   | = | 528.0       |
| 7th do.   | ..... | $\frac{10.5+9.0}{2}$  | × 22.5 | = | 226.12      |
| 8th do.   | ..... | $\frac{3.50+2.5}{2}$  | × 12   | = | 36.36       |
| 9th do.   | ..... | $\frac{0.75+3.50}{2}$ | × 25.5 | = | 54.95       |
| 10th do.  | ..... | $\frac{0.00+0.75}{2}$ | × 20   | = | 7.5         |
| Section on the east side, at 40 feet from the centre. |       |                       |        |   |             |
| 1st portion   | ..... | $\frac{1.5+0.00}{2}$  | × 23.7 | = | 17.77       |
| 2nd do.   | ..... | $\frac{3.8+1.5}{2}$   | × 12   | = | 31.80       |
| 3rd do.   | ..... | $\frac{6.8+3.8}{2}$   | × 20   | = | 106.00      |
| 4th do.   | ..... | $\frac{7.00+0.8}{2}$  | × 13   | = | 89.70       |
| 5th do.   | ..... | $\frac{7.0+7.00}{2}$  | × 27   | = | 197.10      |
| 6th do.   | ..... | $\frac{9.2+7.6}{2}$   | × 60   | = | 504.00      |
| 7th do.   | ..... | $\frac{10.1+9.2}{2}$  | × 22.5 | = | 217.12      |
| 8th do.   | ..... | $\frac{3.16+2.1}{2}$  | × 12   | = | 31.02       |
| 9th do.   | ..... | $\frac{0.35+3.16}{2}$ | × 25.5 | = | 44.75       |
| 10th do.  | ..... | $\frac{0.00+0.35}{2}$ | × 9.3  | = | 1.62        |
| Total area....  |       |                       |        |   | 22,575.71   |
| Mean area .....                                       |       |                       |        |   | 1,287.855   |
| ∴ 1,287.855 × 40 = .....                              |       |                       |        |   | 51,514.20   |

## DISTRIBUTION RESERVOIR—(continued).

|   |       |                       |                 |                           | Solid Feet. |
|---|-------|-----------------------|-----------------|---------------------------|-------------|
| Section on the east side, at 70 feet from the centre.   |       |                       |                 |                           |             |
| 1st portion   | ..... | $\frac{0.1+0.00}{2}$  | $\times 1.6 =$  | 0.08                      |             |
| 2nd do.   | ..... | $\frac{2.4+0.1}{2}$   | $\times 12 =$   | 15.00                     |             |
| 3rd do.   | ..... | $\frac{5.4+2.4}{2}$   | $\times 20 =$   | 78.00                     |             |
| 4th do.   | ..... | $\frac{5.0+5.4}{2}$   | $\times 13 =$   | 71.50                     |             |
| 5th do.   | ..... | $\frac{0.2+5.0}{2}$   | $\times 27 =$   | 159.30                    |             |
| 6th do.   | ..... | $\frac{7.8+0.2}{2}$   | $\times 60 =$   | 420.00                    |             |
| 7th do.   | ..... | $\frac{8.7+7.8}{2}$   | $\times 22.5 =$ | 185.62                    |             |
| 8th do.   | ..... | $\frac{0.7+1.70}{2}$  | $\times 12 =$   | 10.98                     |             |
| 9th do.   | ..... | $\frac{0.00+1.70}{2}$ | $\times 15.9 =$ | 13.99                     |             |
| Total area....  |       |                       |                 | 954.47                    |             |
| Last area ....  |       |                       |                 | 1,240.88                  |             |
|   |       |                       |                 | $2 \overline{) 2,195.35}$ |             |
| Mean area....   |       |                       |                 | 1,097.665                 |             |
| $\therefore 1,097.665 \times 30 =$  |       |                       |                 |                           | 32,929.95   |
| Section taken on the east side, at 136.56 feet from the centre. Same area as the last, 954.47 |       |                       |                 |                           |             |
| $\times 66.56 =$  |       |                       |                 |                           | 63,529.52   |
| Section taken on west side, at 60 feet from the centre.                                       |       |                       |                 |                           |             |
| 1st portion   | ..... | $\frac{1.3}{2}$       | $\times 6.8 =$  | 4.42                      |             |
| 2nd do.   | ..... | $\frac{4.3+1.3}{2}$   | $\times 20 =$   | 56.00                     |             |
| 3rd do.   | ..... | $\frac{4.5+4.3}{2}$   | $\times 13 =$   | 57.20                     |             |
| 4th do.   | ..... | $\frac{5.1+4.5}{2}$   | $\times 27 =$   | 129.60                    |             |
| 5th do.   | ..... | $\frac{0.7+5.1}{2}$   | $\times 60 =$   | 354.00                    |             |



## DISTRIBUTION RESERVOIR—(continued).

|  |       |                       |                        | Solid Feet.  |
|--|-------|-----------------------|------------------------|--|
| 6th portion  | ..... | $\frac{7.0+0.7}{2}$   | $\times 22.5 = 160.87$ |  |
| 7th do.  | ..... | $\frac{0.00+0.00}{2}$ | $\times 37 = 12.21$    |  |
| Total area ...   |       |                       |                        | 774.30   |
| Central area..   |       |                       |                        | 1,334.83   |
|  |       |                       |                        | 2 <span style="border: 1px solid black;">2,109.13</span> |
| Mean area....  |       |                       |                        | 1,054.565  |
| $\therefore 1054.565 \times 60 =$                            |       |                       |                        | 63,273.90  |
| Section taken on the west side, at 110 feet from the centre. |       |                       |                        |  |
| 1st portion  | ..... | $\frac{0.0}{2}$       | $\times 3.1 = 0.93$    |  |
| 2nd do.  | ..... | $\frac{3.0+0.0}{2}$   | $\times 20 = 42.00$    |  |
| 3rd do.  | ..... | $\frac{3.8+3.6}{2}$   | $\times 13 = 48.10$    |  |
| 4th do.  | ..... | $\frac{3.8+4.4}{2}$   | $\times 27 = 110.70$   |  |
| 5th do.  | ..... | $\frac{4.4+0.0}{2}$   | $\times 60 = 312.00$   |  |
| 6th do.  | ..... | $\frac{6.0+0.0}{2}$   | $\times 22.5 = 145.12$ |  |
| Total area....   |       |                       |                        | 658.85   |
| Last area ....   |       |                       |                        | 774.30   |
|  |       |                       |                        | 2 <span style="border: 1px solid black;">1,433.15</span> |
| Mean area....  |       |                       |                        | 716.575  |
| $\therefore 716.575 \times 50 =$                             |       |                       |                        | 35,828.75  |
| Section taken on the west side, at 160 feet from the centre. |       |                       |                        |  |
| 1st portion  | ..... | $\frac{2.0}{2}$       | $\times 18.6 = 26.04$  |  |
| 2nd do.  | ..... | $\frac{3.0+2.0}{2}$   | $\times 13 = 37.70$    |  |
| 3rd do.  | ..... | $\frac{3.0+2.0}{2}$   | $\times 27 = 89.10$    |  |

## DISTRIBUTION RESERVOIR—(continued).

|   |                                     |               |            | Solid Feet. |
|---|-------------------------------------|---------------|------------|-------------|
| 4th portion .....                                       | $\frac{5.2+3.6}{2}$                 | $\times 60$   | $= 264.00$ |             |
| 5th do. ....  | $\frac{6.1+5.2}{2}$                 | $\times 22.5$ | $= 127.12$ |             |
|   | Total area....                      |               | 543.96     |             |
|   | Last area ....                      |               | 656.15     |             |
|   |                                     | 2             | 1,200.11   |             |
|   | Mean area....                       |               | 600.055    |             |
|   | $\therefore 600.055 \times 27.75 =$ |               |            | 16,651.52   |
| Total solid feet of excavation in bed of reservoir .... |                                     |               |            | 2,63,727.84 |

*Portion between Retaining Wall of Reservoir and Parapet  
Wall surrounding it.*

|   | No. | Length. | Breadth. | Depth.                    | Solid Feet. |
|---|-----|---------|----------|---------------------------|-------------|
| Between retaining and surrounding<br>wall $133\frac{3}{4} \times 2 + 2.5 + (2'4'' \times 2)$<br>$+ (10 \times 2) = \frac{294'8''}{169'8''}$ }   | 1   | 464.33  | 8        | average<br>$7\frac{1}{2}$ | 27,859.80   |
| Foundation of wall surrounding<br>reservoir ..... $133'9'' \times$<br>$2 + 2'6'' + 2'4'' \times 2 + (10 \times 2) + (2'4''$<br>$\times 2) =$ one side ..... $299'4''$<br>other side ..... $299'4''$ | 1   | 965.33  | 3        | 3                         | 8,685.00    |
| 2. $(165 + 2'4'' \times 2) + (9'4'' \times 2)$  |     |         |          |                           | 376'8''     |
| Portion occupied by retaining wall,<br>north side :<br>$(133\frac{3}{4} \times 2) + 2.5 + (2'4'' \times 2)$<br>$=$ ..... $274'8''$  | 1   | 320.66  | 3        | 3                         | 2,885.94    |
| Do. do. east and west sides $32$<br>$+ 14 =$ ..... $46'0''$   |     |         |          |                           |             |
| Total solid feet .....  |     |         |          |                           | 39,430.74   |
| Do. as above.....   |     |         |          |                           | 2,63,727.84 |

|   | Solid Feet. |
|---|-------------|
| 1-3rd excavating reservoir, taken in hard moorum,<br>solid feet ..... | 1,01,052·86 |
| 2-3rds do. taken in rock, do. ....                                    | 2,02,105·72 |
| Total solid feet. ....  | 3,03,158·58 |

*Filling in Foundation of Uncoursed Rubble Masonry.*

|   | No. | Length. | Breadth. | Depth. | Solid Feet. |
|---|-----|---------|----------|--------|-------------|
| For retaining wall of reservoir.  | 1   | 320·66  | 3        | 3      | 2,885·94    |
| For wall surrounding reservoir.   | 1   | 965·00  | 3        | 3      | 8,685·00    |
| Total solid feet filling in foundation of uncoursed rubble<br>masonry ..... |     |         |          |        | 11,570·94   |

*Building Retaining Wall of Reservoir.*

|   | No. | Length.           | Breadth.                                | Depth. | Solid Feet. |
|---|-----|-------------------|---|--------|-------------|
| Retaining wall $(133\frac{3}{4} \times 2) +$<br>$2\cdot5 + (1\cdot10 \times 2) \times 2 = 547' 4''$<br>$165 \times 2 = \dots\dots\dots 330' 0''$<br>$\frac{877' 4''}{-52' 0''} \left. \vphantom{\frac{877' 4''}{-52' 0''}} \right\} *1$ |     |                   |   |        |             |
|   |     | $825\frac{1}{3}*$ | $\frac{2\frac{1}{2} + 1\frac{1}{2}}{2}$ | 7      | 10,591·77   |
| Division wall $165 - 26 = 139$  | 1   | 139               | 2·5                                     | 7      | 2,432·50    |
| Cistern walls $26 + 26 + 10 + 10$<br>$= 72 \dots\dots\dots$   | 2   | 72                | 3                                       | 7      | 3,024·00    |
| Do. large portions .....  | 4   | 5                 | 2                                       | 7      | 280·00      |
| Do. small do. ....  | 4   | 2                 | 2                                       | 7      | 112·00      |
| Steps .....   | 20  | 6                 | $\frac{7}{8}$                           | 2      | 840·00      |
| Total solid feet superstructure of cut-stone masonry .....  |     |                   |   |        | 17,280·27   |

*Stone Pavement.*

|   | No. | Length.  | Breadth. | Square Feet. |
|---|-----|----------|----------|--------------|
| Bottom of reservoir $133' 9'' + 2' 10''$<br>+ $1' 3'' = 137' 10''$ the length, and<br>$165' + 2' 10'' = 167' 10''$ breadth. } 2 |     | 137' 10" | 167' 10" | 46,266·05    |
| Total square feet of cut-stone pavement. . . .  |     |          |          | 46,266·05    |

*Filling in Earth between Retaining Wall of Reservoir and Wall surrounding it.*

|  | No. | Length. | Breadth. | Depth.            | Solid Feet. |
|--|-----|---------|----------|-------------------|-------------|
| North side between the two<br>walls . . . . .  | 1   | 300     | 8' 3"    | 15                | 37,125·00   |
| Ditto ditto east and west.   | 1   | 185     | 8' 3"    | $\frac{15+10}{2}$ | 19,078·12   |
| Total solid feet filling in earth between the retaining wall<br>of the reservoir and the wall surrounding it . . . . . |     |         |          |                   | 56,203·12   |

*Wall surrounding Reservoir, of Coursed Rubble Masonry.*

|  | No. | Length. | Breadth. | Depth.        | Solid Feet. |
|--|-----|---------|----------|---------------|-------------|
| North end, lower portion:<br>$133' 9'' \times 2 + 2' 6'' + 2' 4''$<br>$\times 2 + 1' 8'' \times 2 + 4'' =$<br>$304' 4''$ . . . . . | 1   | 304' 4" | 2' 4"    | 2'            | 1,420·22    |
| Do. middle do. . . . .   | 1   | 304'    | 2'       | 2'            | 1,216·00    |
| Do. upper do. . . . .  | 1   | 304'    | 1' 8"    | 12·07         | 6,115·46    |
| East side, 1st portion . . . . .   | 1   | 26' 25  | 2' 4"    | $\frac{2}{2}$ | 61·25       |
| Do. 2nd do. . . . .  | 1   | 31' 31  | 2' 0"    | 2'            | 125·24      |

*Wall surrounding Reservoir—(continued).*

|  | No. | Length.                         | Breadth. | Depth.              | Solid Feet. |
|--|-----|---------------------------------|----------|---------------------|-------------|
| East side, 3rd portion .....   | 1   | 51'93                           | 1' 8"    | $\frac{2\cdot6}{2}$ | 112·51      |
| Do. 4th do. ....   | 1   | 128'58                          | 1' 8"    | 1                   | 214·30      |
| Do. 5th do. ....   | 1   | 189'66                          | 1' 8"    | 7                   | 2,212·70    |
| South side wall .....  | 1   | 304'                            | 1'8"     | 7·12                | 3,607·46    |
| West side, 1st portion .....   | 1   | 27'                             | 2' 4"    | $\frac{2}{2}$       | 63·00       |
| Do. 2nd do. ....   | 1   | $\frac{27+38\cdot25}{2}$        | 2        | 2                   | 130·50      |
| Do. 3rd do. ....   | 1   | $\frac{38\cdot25+67\cdot5}{2}$  | 1' 8"    | 3                   | 264·37      |
| Do. 4th do. ....   | 1   | $\frac{67\cdot5+189\cdot06}{2}$ | 1' 8"    | 3·52                | 754·33      |
| Do. 5th do. ....   | 1   | 189'66                          | 1' 8"    | 7·87                | 2,487·70    |
| Total solid feet..   | ..  | ....                            | ....     | ....                | 18,785·04   |
| DEDUCT—Doorways .....  | 2   | 4'                              | 1' 8"    | 7'                  | 93·33       |
| Total solid feet of coursed rubble masonry in the wall surrounding the reservoir ..... |     |                                 |          |                     | 18,691·71   |

*Filling in Earth to Slope.*

|  | No. | Length. | Breadth.         | Depth.                         | Solid Feet.  |
|--|-----|---------|------------------|--------------------------------|--------------|
| North side.....  | 1   | 304     | 80               | $\frac{7}{3}$                  | 85,120·00    |
| East side .....  | 1   | 158·5   | $\frac{80}{3}$   | $\frac{8\cdot8}{3}$            | 27,896·00    |
| West side .....  | 1   | 193     | $\frac{88+8}{3}$ | $\frac{8\cdot5^2+7\cdot87}{3}$ | 42,180·15    |
| Total solid feet filling in earth to slopes, east, west, and north sides ..... |     |         |                  |                                | 1,55,196·15* |

*Coping to the Wall surrounding Reservoir.*

|   | No. | Length. | Running Feet. |
|---|-----|---------|---------------|
| Coping .....  | 1   | 975' 4" | 975' 4"       |
| Total running feet cut-stone coping to top of surrounding wall of reservoir ..... |     |         | 975' 4"       |

*Doors.*

|   | Number. |
|---|---------|
| Doors teak-wood plank batten 7'×4' .....                            | 2       |
| Total number strong teak-wood plank batten doors to reservoir ..... | 2       |

## ABSTRACT.

| Quantity. |  | Rs.   | a. | p. |
|-----------|--|-------|----|----|
| 1,01,052  | Solid feet excavating reservoir in hard moorum, at Rs. 0-14-0 per 100 solid feet .....   | 884   | 3  | 3  |
| 2,02,105  | Solid feet excavating reservoir in rock at Rs. 4 per 100 solid feet .....  | 8,084 | 3  | 2  |
| 11,571    | Solid feet filling in foundation of uncoursed rubble masonry, at Rs. 8 per 100 solid feet ....   | 925   | 10 | 10 |
| 17,280    | Solid feet of superstructure of cut-stone masonry (coursed rubble masonry faced with cut-stone on the inside), at Rs. 30 per 100 solid feet. | 5,184 | 0  | 0  |

ABSTRACT—(continued).

| Quantity.  |   | Rs.   a   p. |
|--|---|--------------|
| 46,266   | Square feet of cut-stone pavement, at Rs. 31-8-0 per 100 square feet . .  | 14,573 12 7  |
| 56,203   | Solid feet filling in earth between the retaining wall of the reservoir, and the wall surrounding it, at Rs. 1-2-0 per 100 solid feet . . . . . | 632 4 6      |
| 18,691   | Solid feet of coursed rubble masonry in the wall surrounding the reservoir, at Rs. 9-8-0 per 100 solid feet.                                    | 1,775 10 3   |
| 1,55,196   | Solid feet filling in earth to slopes, at Rs. 1-2-0 per 100 solid feet. . . . .   | 1,745 15 3   |
| 975  | Running feet of cut-stone coping to top of the wall surrounding the reservoir, at Rs. 1-4-0 per running foot.                                   | 1,218 12 0   |
| 2  | Number of doors of teak-wood plank battened 7' × 4', at Rs. 28 each. . . .  | 56 0 0       |
| Total. . . . . Rs.   |   | 35,080 7 10  |
| Contingencies, at 5 per cent. . . . .  |   | 1,754 0 4    |
| Total amount for distribution reservoir to contain two days' supply . . . . . Rs.. |   | 36,834 0 0   |

DISTRIBUTION RESERVOIR.—ONE DAY'S SUPPLY.

MEASUREMENTS.

*Excavation.*

| Section on C. D. through the centre. |                                    |        |        | Solid Feet. |
|--------------------------------------|------------------------------------|--------|--------|-------------|
| 1st portion . . . . .                | $\frac{1 \cdot 20 + 4 \cdot 2}{3}$ | × 12 = | 36·60  | ★           |
| 2nd do. . . . .                      | $\frac{4 \cdot 2 + 7 \cdot 2}{2}$  | × 20 = | 114·00 |             |

## DISTRIBUTION RESERVOIR—(continued).

|   |                             |   |      |   | Solid Feet. |
|---|-----------------------------|---|------|---|-------------|
| 3rd portion   | $\frac{7.2+7.4}{2}$         | × | 13   | = | 94.90       |
| 4th do.   | $\frac{7.4+8.0}{2}$         | × | 27   | = | 207.90      |
| 5th do.   | $\frac{8.0+9.6}{2}$         | × | 60   | = | 528.00      |
| 6th do.   | $\frac{9.6+9.8}{2}$         | × | 4    | = | 38.80       |
| 7th do.   | 5.50                        | × | 3.75 | = | 20.62       |
| 8th do.   | $\frac{20.5 \times 2}{2}$   |   |      | = | 20.50       |
| Section taken on east side, at 40 feet from the centre.     |                             |   |      |   |             |
| 1st portion   | $\frac{1.5+3.8}{2}$         | × | 12   | = | 31.80       |
| 2nd do.   | $\frac{3.8+6.8}{2}$         | × | 20   | = | 106.00      |
| 3rd do.   | $\frac{6.8+7.0}{2}$         | × | 13   | = | 89.70       |
| 4th do.   | $\frac{7.0+7.6}{2}$         | × | 27   | = | 197.10      |
| 5th do.   | $\frac{7.6+9.2}{2}$         | × | 60   | = | 504.00      |
| 6th do.   | $\frac{9.2+9.4}{2}$         | × | 4    | = | 37.20       |
| 7th do.   | 5.1                         | × | 3.35 | = | 17.08       |
| 8th do.   | $\frac{1.6 \times 20.5}{2}$ |   |      | = | 20.50       |
| Total area....  |                             |   |      |   | 1,003.38    |
|   |                             |   |      |   | 22,064.70   |
|   |                             |   |      |   | 1,032.35    |
| ∴ Mean area 1,032.35 × 40 = solid feet.....                 |                             |   |      |   | 41,294.00   |
| Section taken on the east side, at 70 feet from the centre. |                             |   |      |   |             |
| 1st portion   | $\frac{0.1+2.4}{2}$         | × | 12   | = | 15.00       |
| 2nd do.   | $\frac{2.4+5.4}{2}$         | × | 20   | = | 78.00       |
| 3rd do.   | $\frac{5.4+5.6}{2}$         | × | *13  | = | 71.50       |
| 4th do.   | $\frac{5.6+6.2}{2}$         | × | 27   | = | 159.30      |
| 5th do.   | $\frac{6.2+7.8}{2}$         | × | 60   | = | 420.00      |
| 6th do.   | $\frac{7.8+8.0}{2}$         | × | 4    | = | 63.20       |



## DISTRIBUTION RESERVOIR—(continued)

|  |       |                             |        |          | Solid Feet. |
|--|-------|-----------------------------|--------|----------|-------------|
| 7th portion  | ..... | 1 05                        | × 5.5  | = 10.72  |             |
| 8th do.  | ..... | $\frac{0.2 \times 20.5}{2}$ |        | = 2.05   |             |
|  |       |                             |        |          | 819.77      |
| Last area....  |       |                             |        |          | 1,003.38    |
|  |       |                             |        |          | 2 1,823.15  |
|  |       |                             |        |          | 911.575     |
| ∴ Mean area 911.575 × 30 = .....                             |       |                             |        |          | 27,347.25   |
| Section taken on east side, at 111.5 feet from the centre.   |       |                             |        |          |             |
| 1st portion  | ..... | $\frac{2}{2}$               | × 10.4 | = 10.40  |             |
| 2nd do.  | ..... | $\frac{5+2}{2}$             | × 20   | = 70.00  |             |
| 3rd do.  | ..... | $\frac{5+5.2}{2}$           | × 13   | = 66.30  |             |
| 4th do.  | ..... | $\frac{5.2+5.8}{2}$         | × 27   | = 148.50 |             |
| 5th do.  | ..... | $\frac{5.8+7.4}{2}$         | × 60   | = 396.00 |             |
| 6th do.  | ..... | $\frac{7.4+7.6}{2}$         | × 4    | = 30.00  |             |
| 7th do.  | ..... | 1.5                         | × 5.5  | = 8.25   |             |
| 8th do.  | ..... | $\frac{1.5 \times 20.5}{2}$ |        | = 15.37  |             |
|  |       |                             |        |          | 744.82      |
| Last area....  |       |                             |        |          | 819.77      |
|  |       |                             |        |          | 2 1,564.59  |
|  |       |                             |        |          | 782.295     |
| ∴ Mean area 782.295 × 41.5 = .....                           |       |                             |        |          | 32,465.24   |
| Section taken on the west side*, at 60 feet from the centre. |       |                             |        |          |             |
| 1st portion  | ..... | $\frac{1.8+0.8}{2}$         |        | = 4.42   |             |
| 2nd do.  | ..... | $\frac{1.8+4.2}{2}$         | × 20   | = 56.00  |             |
| 3rd do.  | ..... | $\frac{4.2+4.6}{2}$         | × 13   | = 57.20  |             |

## DISTRIBUTION RESERVOIR—(continued).

|   |       |                     |       |          | Solid Feet. |
|---|-------|---------------------|-------|----------|-------------|
| 4th portion   | ..... | $\frac{5.1+4.5}{2}$ | × 27  | = 129.60 |             |
| 5th do.   | ..... | $\frac{6.7+5.1}{2}$ | × 60  | = 354.00 |             |
| 6th do.   | ..... | $\frac{6.9+6.7}{2}$ | × 4   | = 27.20  |             |
| 7th do.   | ..... | 0.85                | × 5.5 | = 4.67   |             |
| 8th do.   | ..... | $\frac{0.85}{2}$    | × 8.9 | = 3.78   |             |
| Total area....  |       |                     |       |          | 636.87      |
| Last area ....  |       |                     |       |          | 1,061.32    |
|   |       |                     |       |          | 21,698.19   |
| Mean area....   |       |                     |       |          | 849.09      |
| ∴ 849.09 mean area × 60 = solid feet.....                       |       |                     |       |          | 50,945.40   |
| Section taken on the west side, at 112.62 feet from the centre. |       |                     |       |          |             |
| 1st portion   | ..... | $\frac{0.6}{2}$     | × 3   | = 0.90   |             |
| 2nd do.   | ..... | $\frac{0.6+3.6}{2}$ | × 20  | = 42.00  |             |
| 3rd do.   | ..... | $\frac{3.0+3.8}{2}$ | × 13  | = 48.10  |             |
| 4th do.   | ..... | $\frac{3.8+4.4}{2}$ | × 27  | = 110.70 |             |
| 5th do.   | ..... | $\frac{4.4+6.0}{2}$ | × 60  | = 312.00 |             |
| 6th do.   | ..... | $\frac{6.0+6.2}{2}$ | × 4   | = 24.40  |             |
| 7th do.   | ..... | 0.15                | × 5.5 | = 0.82   |             |
| Total area....  |       |                     |       |          | 538.92      |
| Last area ....  |       |                     |       |          | 632.45      |
|   |       |                     |       |          | 21,171.37   |
| Mean area....   |       |                     |       |          | 585.685     |
| ∴ 585.685 mean area × 52.62 = solid feet .....                  |       |                     |       |          | 30,818.74   |

## DISTRIBUTION RESERVOIR—(continued).

|   | Solid Feet.        |
|---|--------------------|
| Excavation for foundation of wall surrounding the reservoir.                  |                    |
| Reservoir 201 + (2' 4" × 2) + (10 × 2) +<br>(1' 8" × 2) = 292 × 2 = ..... 458 |                    |
| Reservoir 110 + (2' 4" × 2) + (10 × 2) +<br>134' 8" × 2 ..... 269·4           |                    |
|   | <u>727' 4"</u>     |
| 727' 4" × 3 × 3 = ....  | 6,546·00           |
| Solid feet as above ..... 41,294·00   |                    |
| Do. .... 27,347·25  |                    |
| Do. .... 32,465·24  |                    |
| Do. .... 50,945·40  |                    |
| Do. .... 30,818·74  |                    |
| Do. .... 6,546·00   |                    |
| Total solid feet excavation ..... <u>1,89,416·63</u>                          |                    |
| Total solid feet excavation....   | <u>1,89,416·63</u> |
| 1-3rd excavating reservoir taken in hard moorum,<br>solid feet .....          | 63,138·87          |
| 2-3rds do. do. taken in rock, solid feet.                                     | 1,26,277·76        |
| Total solid feet....  | <u>1,89,416·63</u> |

*Filling in Foundation of Uncoursed Rubble Masonry.*

|  | No. | Length. | Breadth. | Depth. | Solid Feet. |
|--|-----|---------|----------|--------|-------------|
| Wall surrounding the reservoir, 1st offset ..... | 1   | 727' 4" | 3        | 3      | 6,546·00    |

*Filling in Foundation—(continued).*

|  | No. | Length. | Breadth. | Depth.                 | Solid Feet. |
|--|-----|---------|----------|------------------------|-------------|
| Wall surrounding the reservoir, 2nd offset . . . . .                           | 1   | 229' 8" | 2' 4"    | 7.77                   | 4,163.85    |
| Do. do. east side . .  | 1   | 12      | 2' 4"    | $\frac{2}{2}$          | 28.00       |
| Do. do. do. . .  | 1   | 32      | 2' 4"    | $\frac{2.8}{2}$        | 104.53      |
| Do. do. do. . .  | 1   | 108' 8" | 2' 4"    | $\frac{3}{2}$          | 253.55      |
| Do. do. west side . .  | 1   | 15      | 2' 4"    | $\frac{3}{2}$          | 52.50       |
| Do. do. do. . .  | 1   | 45      | 2' 4"    | $\frac{3}{2}$          | 157.50      |
| Do. do. do. . .  | 1   | 229' 8" | 2' 4"    | $\frac{3.52 + .87}{2}$ | 1,178.95    |
| Total solid feet filling in foundation with uncoursed rubble masonry . . . . . |     |         |          |                        | 12,484.88   |

*Building Retaining Wall of Reservoir.*

|  | No. | Length. | Breadth. | Depth. | Solid Feet. |
|--|-----|---------|----------|--------|-------------|
| Retaining wall 201 +<br>(2' 4" × 2) × 2 = ..411' 4"          | 1   | 588' 8" | 2' 4"    | 1.75   | 2,403.72    |
| Retaining wall 110 +<br>(2' 4" × 2) × 2 = ..229' 4"          |     |         |          |        |             |
| 640.8  |     |         |          |        |             |
| Deduct—Cistern wall 52.0                                     |     |         |          |        |             |
| 588.8  |     |         |          |        |             |
| Retaining wall, 2nd offset. . . .                            | 1   | 588' 8" | 2' 0"    | 1.75   | 2,060.33    |
| Do. 3rd do. . . .  | 1   | 588' 8" | 1' 8"    | 1.75   | 1,716.94    |
| Do. 4th do. . . .  | 1   | 588' 8" | 1' 4"    | 1.75   | 1,373.55    |
| Cistern walls, 26 + 26 + 10 +<br>10 = 72 in length . . . . . | 2   | . 72    | 3        | 7      | 3,024.00    |

*Building Retaining Wall—(continued).*

|   | No. | Length. | Breadth.      | Depth. | Solid Feet.      |
|---|-----|---------|---------------|--------|------------------|
| Cistern wall pieces at the ends<br>of steps .....           | 4   | 3       | 2             | 7      | 168·00           |
| Steps .....   | 12  | 6       | $\frac{7}{2}$ | 2      | 504·00           |
| Total solid feet of superstructure of cut-stone masonry . . |     |         |               |        | <u>11,250·54</u> |

*Stone Pavement.*

|   | No. | Length. | Breadth. | Depth. | Solid Feet.      |
|---|-----|---------|----------|--------|------------------|
| Bottom of reservoir .....                     | 1   | 206'8"  | 115'8"   | 1      | 23,904·44        |
| Total square feet of cut-stone pavement . . . |     |         |          |        | <u>23,904·44</u> |

*Filling in Earth between Retaining Wall of Reservoir and  
Wall surrounding it.*

|  | No. | Length. | Breadth. | Depth. | Solid Feet.      |
|--|-----|---------|----------|--------|------------------|
| North side between the two<br>walls .....  | 1   | 225'8"  | 8'3"     | 10'    | 18,617·50        |
| Do. east and west sides..  | 2   | 134'7"  | 8'3"     | 7'0    | 15,544·37        |
| Do. south side .....   | 1   | 225'8"  | 6'3"     | 8'0    | 11,283·33        |
| Total solid feet filling in earth between the retaining wall<br>of the reservoir and the wall surrounding it ..... |     |         |          |        | <u>45,445·20</u> |

*Wall surrounding the Reservoir, of Coursed Rubble Masonry.*

|  | No. | Length. | Breadth. | Depth. | Solid Feet. |
|--|-----|---------|----------|--------|-------------|
| Wall surrounding the reservoir   | 1   | 727'4"  | 1'8"     | 7      | 8,485·55    |
| Deduct—Door-ways . . . . .   | 2   | 4       | 1'8"     | 7      | 93·33       |
| Total solid feet of coursed rubble masonry in the wall surrounding the reservoir . . . . . |     |         |          |        | 8,392·22    |

*Filling in Earth to Slopes.*

|   | No. | Length. | Breadth.               | Depth.              | Solid Feet. |
|---|-----|---------|------------------------|---------------------|-------------|
| North side . . . . .  | 1   | 229     | $\frac{122+90+130}{3}$ | $\frac{7\cdot0}{2}$ | 91,371·00   |
| East side . . . . .   | 1   | 138     | 61                     | $\frac{7\cdot5}{2}$ | 31,567·50   |
| West side . . . . .   | 1   | 138     | 58                     | $\frac{8}{2}$       | 32,016·00   |
| Total solid feet filling in earth to slopes on the N. E. and W. sides . . . . . |     |         |                        |                     | 1,54,954·5  |

*Coping to Wall surrounding the Reservoir.*

|  | No. | Length. | Running Feet. |
|--|-----|---------|---------------|
| Coping . . . . .   | 1   | 727'4"  | 727'4"        |
| Total running feet of cut-stone coping to top of surrounding wall of reservoir . . . . . |     |         | 727'4"        |

*Doors.*

|  | No. |
|--|-----|
| Doors of teak-wood plank batten 7' × 4' to reservoir . . . . | 2   |
| Total No. of doors of teak-wood plank battened . . . .       | 2   |

## ABSTRACT.

| Quantities |   | Rs. a. p.  |
|------------|---|------------|
| 63,138     | Solid feet excavating reservoir in hard moorum, at Rs. 0-14-0 per 100 solid feet . . . . .  | 552 7 3    |
| 1,26,277   | Solid feet excavating reservoir in rock, at Rs. 4 per 100 solid feet . . . . .  | 5,051 1 3  |
| 12,484     | Solid feet filling in foundation with uncoursed rubble masonry, at Rs. 8 per 100 solid feet . . . . .   | 998 11 6   |
| 11,250     | Solid feet of superstructure of cut-stone masonry, at Rs. 30 per 100 solid feet (coursed rubble masonry faced with cut-stone on the inside) . . . . . | 3,375 0 0  |
| 23,904     | Square feet of cut-stone pavement, at Rs. 31-8-0 per 100 square feet . . . .  | 7,529 12 1 |
| 45,445     | Solid feet of filling in earth between the retaining wall of the reservoir, and the wall surrounding it, at Rs. 1-2-0 per 100 solid feet . . . . .    | 511 4 1    |
| 8,392      | Solid feet of coursed rubble masonry in the wall surrounding the reservoir, at Rs. 9-8-0 per 100 solid feet . . . . .                                 | 797 3 10   |

## ABSTRACT—(continued).

| Quantities.   |   | Rs. a. p.  |
|---|---|------------|
| 1,54,954  | Solid feet of filling in earth to slopes on the N. E. and west sides, at Rs. 1-2-0 per 100 solid feet.....    | 1,743 3 8  |
| 727   | Running feet of cut-stone coping to top of surrounding wall of reservoir, at Rs. 1-4-0 per running foot ..... | 908 12 0   |
| 2   | No. of doors of teak-wood plank battened 7' x 4', at Rs. 28 each .....  | 56 0 0     |
| Total..Rs....   |   | 21,523 7 8 |
| Contingencies, at 5 per cent.....   |   | 1,076 2 9  |
| Total amount for distribution reservoir to contain one day's supply.. ..... |   | 22,599 0 0 |

## No. 8.—CAMP DISTRIBUTION.

## MEASUREMENTS.

*Excavation for Cisterns 25' x 18' x 8'.*

|  | No. | Length. | Breadth. | Depth. | Solid Feet. |
|--|-----|---------|----------|--------|-------------|
| Cistern .....  | 1   | 31      | 24       | 9      | 6,696·00    |
| Paving .....   | 1   | 123½    | 5        | 1      | 616·66      |
| Total solid feet excavation for cistern 25' x 18' x 8'.... |     |         |          |        | 7,312·66    |
| ½ of excavation for cistern, taken in moorum.....          |     |         |          |        | 3,656·33    |
| ½ ditto taken in soft rock .....                           |     |         |          |        | 3,656·33    |
| Total solid feet....                                       |     |         |          |        | 7,312·66    |



*Retaining Walls.*

|   | No. | Length. | Breadth.        | Depth. | Solid Feet. |
|---|-----|---------|-----------------|--------|-------------|
| 1st portion .....   | 1   | 98      | 3               | 1      | 294·00      |
| 2nd do. ....  | 1   | 96      | 2·5             | 2      | 480·00      |
| 3rd do. ....  | 1   | 94'8"   | 2 $\frac{1}{6}$ | 2      | 473·33      |
| 4th do. ....  | 1   | 93'4"   | 1 $\frac{5}{6}$ | 2      | 342·22      |
| 5th do. ....  | 1   | 92'     | 1·5             | 2      | 276·00      |
| Total solid feet of retaining walls of coursed rubble masonry, faced with cut-stone on the inside ..... |     |         |                 |        | 1,865·55    |

*Cut-Stone Masonry.*

|  | No. | Length. | Breadth. | Depth. | Solid Feet. |
|--|-----|---------|----------|--------|-------------|
| Parapet wall.....  | 1   | 91' 4"  | 1' 4"    | 2' 9"  | 334·88      |
| Total solid feet of cut-stone on both sides, including coping. . |     |         |          |        | 334·88      |

*Paving.*

|   | No. | Length. | Breadth. | Square Feet. |
|---|-----|---------|----------|--------------|
| In the cistern .....                          | 1   | 25      | 18       | 450·00       |
| Surrounding cistern outside the parapet ..... | 1   | 124     | 6·5      | 806·00       |
| Total square feet cut-stone paving. . . .     |     |         |          | 1,256·00     |

*Excavation for Small Cistern 15' × 10' × 8'.*

|   | No. | Length. | Breadth. | Depth. | Solid Feet. |
|---|-----|---------|----------|--------|-------------|
| Cistern .....   | 1   | 21      | 16       | 9      | 3,024·00    |
| Paving .....  | 1   | 94      | 5        | 1      | 470·00      |
| Total solid feet excavating for small cistern 15' × 10' × 8'..    |     |         |          |        | 3,494·00    |
| $\frac{1}{2}$ excavation for small cistern, taken in moorum ..... |     |         |          |        | 1,747·00    |
| $\frac{1}{2}$ do. do. taken in soft rock .....                    |     |         |          |        | 1,747·00    |
| Total solid feet....  |     |         |          |        | 3,494·00    |

*Retaining Walls.*

|   | No. | Length. | Breadth.        | Depth. | Solid Feet. |
|---|-----|---------|-----------------|--------|-------------|
| 1st portion .....   | 1   | 62      | 3               | 1      | 186·00      |
| 2nd do .....  | 1   | 60      | 2 $\frac{1}{2}$ | 2      | 300·00      |
| 3rd do. ....  | 1   | 58' 8"  | 2 $\frac{1}{6}$ | 2      | 254·22      |
| 4th do. ....  | 1   | 57' 4"  | 1 $\frac{5}{6}$ | 2      | 210·22      |
| 5th do. ....  | 1   | 56'     | 1 $\frac{1}{2}$ | 2      | 168·00      |
| Total solid feet retaining walls of coursed rubble masonry,<br>faced with cut-stone on the inside ..... |     |         |                 |        | 1,118·44    |

*Cut-Stone Masonry.*

|  | No. | Length. | Breadth. | Depth. | Solid Feet. |
|--|-----|---------|----------|--------|-------------|
| Parapet wall .....   | 1   | 55' 4"  | 1' 4"    | 2' 9"  | 202·88      |
| Total solid feet of cut-stone on both sides, including<br>coping ..... |     |         |          |        | 202·88      |

*Paving.*

|  | No. | Length. | Breadth | Square Feet. |
|--|-----|---------|---------|--------------|
| In the cistern .....                     | 1   | 15      | 10      | 150          |
| Surrounding cistern outside the parapet  | 1   | 88      | 6.5     | 572          |
| Total square feet cut-stone paving ..... |     |         |         | 722          |

*Distribution Pipes.*

|  | Length. | Running Feet. |
|--|---------|---------------|
| Iron pipes 5-inch diameter .....           | 23,585  | 23,585        |
| Iron pipes 4-inch diameter .....           | 23,585  | 23,585        |
| Total running feet 5-inch iron pipes ..... |         | 23,585        |
| Do. 4-inch iron pipes .....                |         | 23,585        |

## ABSTRACT.

| Quantities. |  | Rs. a. p. |
|-------------|--|-----------|
|             | <i>Cistern 25' × 18' × 8'.</i>   |           |
| 3,656       | Solid feet excavation for cistern in moorum, at Rs. 0-10-6 per 100 solid feet.   | 23 15 10  |
| 3,656       | Solid feet excavation for cistern in soft rock, at Rs. 2 per 100 solid feet ....   | 73 1 11   |
| 1,865       | Solid feet retaining walls to sides of cisterns of coursed rubble masonry, faced with cut-stone on the inside, at Rs. 30 per 100 solid feet..... | 559 8 0   |
| 335         | Solid feet of cut-stone masonry on both sides, including coping for parapet, at Rs. 35 per 100 solid feet .....                                  | 117 4 0   |

## ABSTRACT—(continued).

| Quantities. |  | Rs. a. p.  |
|-------------|--|------------|
| 1,256       | Square feet of cut-stone paving to cistern, at Rs. 31-8-0 per 100 square feet .....  | 395 10 2   |
|             | Total....Rs..  | 1,169 7 11 |
|             | Contingencies, at 5 per cent.....  | 58 7 7     |
|             | Total amount for the cistern 25' × 18' × 8' .....  | 1,227 0 0  |
|             | <i>Cistern 15' × 10' × 8'</i>  |            |
| 1,747       | Solid feet of excavation for cistern in moorum, at Rs. 0-10-6 per 100 solid feet .....   | 11 7 5     |
| 1,747       | Solid feet excavation for cistern in soft rock, at Rs. 2 per 100 solid feet....  | 34 15 0    |
| 1,118       | Solid feet of retaining walls to sides of cistern, of coursed rubble masonry, faced with cut-stone on the inside, at Rs. 30 per 100 solid feet ..... | 335 6 4    |
| 203         | Solid feet of cut-stone masonry on both sides, including coping for parapets, at Rs. 35 per 100 solid feet .....                                     | 71 0 9     |
| 722         | Square feet* of cut-stone paving to cisterns, at Rs. 31-8-0 per 100 square feet .....  | 227 6 10   |
|             | Total....Rs..  | 680 4 4    |
|             | Contingencies, at 5 per cent.....  | 34 0 3     |
|             | Total amount for the cistern 15' × 10' × 8' ..   | 714 0 0    |

## ABSTRACT.

| Quantities.  |  | Rs. a. p.    |
|--|--|--------------|
| 23,585   | Running feet of 5-inch iron pipes, including trenching, hydrants, &c., at Rs. 1-7-8 per running foot . . . . . | 34,886 2 4   |
| 23,585   | Running feet of 4-inch iron pipes, including trenching, hydrants, &c., at Rs. 1-2-7 per running foot . . . . . | 27,392 15 11 |
| Total . . . Rs. .                                    |  | 62,279 2 3   |
| Contingencies, at 5 per cent. . . . .                |  | 3,113 15 3   |
| Total amount for camp distribution pipes . . . Rs. . |  | 65,393 0 0   |

## RECAPITULATION OF THE CAMP DISTRIBUTION.

|   | Rs. a. p.    |
|---|--------------|
| Cisterns 24 in No., at Rs. 1,227 each . . . . . | 29,448 0 0   |
| Cisterns 12 in No., at „ 714 each . . . . .     | 8,568 0 0    |
| Iron pipes for the camp distribution . . . . .  | 65,393 0 0   |
| Total amount for the camp distribution . . .    | 1,03,409 0 0 |

## GENERAL RECAPITULATION OF THE ESTIMATE.

| No. |   | Rs. a. p.    |
|-----|---|--------------|
| 1   | The embankment . . . . .                                  | 1,52,064 0 0 |
| 2   | The waste weir . . . . .                                  | 10,517 0 0   |
| 3   | The artificial cut to carry off the first floods. . . . . | 24,651 0 0   |
| 4   | The inlet tower . . . . .                                 | 12,172 0 0   |

GENERAL RECAPITULATION—(*continued*).

| No. |   | Rs.      | a. | p. |
|-----|---|----------|----|----|
| 5   | The gangway .....   | 9,082    | 0  | 0  |
| 6   | The masonry aqueduct and tunnel .....                         | 1,14,969 | 0  | 0  |
| ,,  | The iron conduit pipe and tunnel .....                        | 1,85,434 | 0  | 0  |
| 7   | The distribution reservoir, to contain two days' supply ..... | 36,834   | 0  | 0  |
| ,,  | The distribution reservoir, to contain one day's supply ..... | 22,599   | 0  | 0  |
| 8   | The camp distribution .....                                   | 1,03,409 | 0  | 0  |

(Signed)      PHILIP L. HART, Captain,  
Engineers, on Special Duty.

*Camp Poona, 23rd October, 1857.*



**SELECTIONS FROM THE RECORDS OF THE BOMBAY  
GOVERNMENT.**

No. XLVIII.—NEW SERIES.

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**A SHORT REVIEW**

OF

**MR. PLOWDEN'S REPORT**

ON THE

**SALT EXCISE OF THE BOMBAY PRESIDENCY**

PRESENTED TO BOTH HOUSES OF PARLIAMENT BY COMMAND  
OF HER MAJESTY, 1856.

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**Illustrated by a Diagram.**

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**BY NICHOLAS A. DALZELL, A.M., F.B.S.E.**

UNCOVENANTED ASSISTANT COMMISSIONER OF CUSTOMS, SALT, AND OPIUM AT SURAT.

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1858.





## A SHORT REVIEW, &c. &c.

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1. From the remarks contained in the first 16 paragraphs of the Salt Report, which I now venture to review, it would appear that the object of Mr. Plowden's visit to Bombay in March 1854 was to acquire a knowledge of the system in operation there with regard to the manufacture of Salt, with a view to the practicability and expediency of introducing something similar into Bengal.

2. But Mr. Plowden has not restricted himself to this inquiry only, but has also entered on a history of the Salt Excise in Bombay, touching its administration, the success or otherwise of the various changes it has undergone, and the financial results deducible therefrom.

3. The conclusions that Mr. Plowden has arrived at (paragraphs 443 to 445) are of a sufficiently gloomy and unpromising aspect; they are as follows:—

1st.—That extensive smuggling *must* be supposed.

2nd.—That the deliveries of Salt have declined in the ten years succeeding the increase of duty from Eight to Twelve Annas.

3rd.—That the population *must* have progressively increased.

4th.—That the control has been lax; and, finally, that he knows not whether it is the enhancement of the duty or the extensive smuggling that is the cause of the decreased consumption of Salt.

4. The final impression which Mr. Plowden leaves on the mind of the reader is, that unless "the revenue exhibit a marked improvement, it will be necessary to reduce the tax on Salt to the old rate of eight annas per maund." (*Vide* paragraph 446.)

5. It will, perhaps, be considered rather a bold undertaking to attempt, as I now do, to show, and that with the same data and facts as were furnished to Mr. Plowden, that his views are erroneous and unfounded, and that his conclusions are not such as a careful and attentive study of facts and figures ought to have led him to adopt.

6. It will be seen in the sequel that the stubborn figures in this

Parliamentary Book, when properly understood, refuse to accommodate themselves to Mr. Plowden's view of the question.

7. If this Report of Mr. Plowden's had merely reference to the past, it might, with safety, be deposited on the shelves of the Record room; but as it gives considerable countenance to a reduction of the Excise, with the view of benefiting the revenue, I think it is my duty, as a public officer of the Department of Salt Excise, to expose any fallacy that may lead to a step that, in my opinion, would be fraught with mischief to the revenue.

8. From paragraph 334 of Mr. Plowden's Report we learn that, in 1816 and 1818, the Court of Directors drew the attention of the Bombay Government to the progressive decline in the deliveries of Salt from 1813-14 to 1846-47.

9. A searching inquiry was, in consequence, undertaken by the Bombay Government to discover the cause of this decline, and the conclusion to which they came was, that "the increase in the Excise must have had a tendency both to diminish consumption *and* increase the contraband trade." (*Vide* paragraph 335)

10. I may just, *en passant*, advert to the antagonistic nature of these two tendencies, as the increase in the contraband trade would rather tend to keep up the amount of consumption than to diminish it.

11. This, however, was the view taken by the Bombay Government (paragraph 336), as appears from the following minutes on the subject:—

"The Governor recorded that the effect of the Salt Excise on the consumption cannot be ascertained till the extensive smuggling, which is *supposed* to exist, shall have been put an end to."

12. Mr. Willoughby, in his minute on the subject (paragraph 336), "hoped that the severe penalties of Act XXXI. of 1850 against *smuggling* would increase the revenue by diminishing the contraband trade."

13. Now, in the very next year after the Act passed, that is in 1850-51, as we learn from Appendix K of Mr. Plowden's Report, there was a falling off, in the deliveries of Salt, to the extent of 1,03,496, maunds, so Mr. Willoughby's expectations were not realised.

14. In addition to these causes assigned by the Bombay Government for the falling off alluded to by the Honorable Court, Mr. Willoughby superadded, as a corollary to the above, and inevident connection with the "supposed extensive smuggling," "that the advantages anticipated from the appointment of Uncovenanted Assistants to the Collector of Continental Customs and Excise had not been realised," in which opinion Mr. Blane concurred.

15. I will not make any comment upon these views of the Bombay Government (which, however, seem to be assumed more as probabili-

ties than adopted as fixed opinions) : *1st*—Because it would not become me to do so ; and *2nd*, because, if I succeeded in showing, as I hope to do, that there was no diminished consumption of *licit* Salt by the population ; that the deliveries of Salt did not fall off in consequence of an increase in the tax ; and also that the revenue did not suffer in the least by that measure ; then, I think, that the “supposed extensive smuggling” and the other collateral and subsidiary causes assigned for the falling off, pointed out by the Honorable Court, will not be able to stand by themselves.

16. I shall, first of all, then, point out the true cause of the “progressive decline in the deliveries of Salt from 1843-44 to 1846-47,” which seems hitherto to have entirely escaped notice.

17. After giving the explanation promised, I think it will be conceded by every honest mind, that had it been known to the Honorable the Court of Directors, they would not, when reviewing the Salt Revenue for the years 1843-44 and 1844-45, have had reason to complain of the falling off in the deliveries of Salt in the latter or two subsequent years, and no perplexity or disappointment would have been experienced by the Bombay Government on the subject.

18. The explanation is simply this ;—that in the year 1842-43 and 1843-44 (the two last at the eight annas rate), there was a rumour prevalent throughout the country, that there was shortly to be an increase of the Salt Tax, the consequence of which was, that speculators came into the market and bought up immense quantities of Salt with the very obvious purpose of storing it up until the additional tax had raised the market price of the article, as it would do, of course, in proportion to the amount of additional tax.

19. Such being the fact, is it any difficult matter to perceive that the deliveries of Salt during these two years could afford no criterion of the ordinary state of the Salt Revenue, or represent the consumption of the article by the population as under ordinary circumstances ?

20. If any person were disposed to doubt the truth of my assertion with regard to the immense quantities of Salt bought up in these two years, I may here state that I am, fortunately, enabled, simply by the facts and figures which are to be found in Mr. Plowden's report, to bring forward two very strong proofs of the extraordinary sales alluded to in these two years.

21. Let me, in the first place, however, in common with Mr. Plowden in his 345 paragraph, regret the paucity of materials, and the imperfect state of the Salt Records for the year 1841-42, as well as the three years preceeding, when the Salt Act 1837, fixing the tax at eight annas, came into operation, Mr. Plowden has, consequently, been

unable to furnish any account of the deliveries of Salt for the four years 1838-39, 1839-40, 1840-41, 1841-42.

22. I feel under obligations, however, to Mr. Plowden for a very valuable piece of information given in paragraph 114 of his Report, which is that *the average annual gross revenue on Salt from 1838-39 to 1843-44 (the six years) during which the tax was eight annas per Indian maund was Rs. 15,48,469, or say in round numbers 15½ lacs of Rupees.*

23. The deliveries of Salt during the two last of these six years are to be found in Appendix K of Mr. Plowden's Report; the average deliveries, &c. are as follows :—

|   | Indian Maunds.          |
|---|-------------------------|
| Foreign Imports .....   | 2,23,022                |
| Taken for consumption in the interior .....                                     | 29,66,215               |
| Exports to Calcutta .....   | 4,80,426                |
| <b>Total, at Eight Annas per Maund....</b>                                      | <b>36,69,663</b>        |
| Exports to British Ports, Madras Presidency, at Three Pies per Maund .....      | 5,08,057                |
| Exports to Foreign Ports, Madras Presidency, at One Anna per Indian Maund ..... | 2,03,856                |
| Exported beyond India, at One Anna per Maund .....                              | 57,037                  |
| <b>Grand Total.....</b>   | <b><u>44,38,613</u></b> |

24. The average annual gross revenue for the two years 1842-43 and 1843-44 on the quantity of Salt indicated as above, was no less than Rs. 18,59,074, or say in round numbers 18½ lacs, for the sake of convenience, and as my argument can afford to lose a little.

25. We have now obtained two facts, viz. the average revenue of the six years 1838-39 to 1843-44, viz. 15½ lacs of Rupees, and also the average revenue of the two last of these years, viz. 18½ lacs, so that, as will be seen by the following calculation, we can tell to a nicety what was the average of the former four years, and that it was exactly 14 lacs of Rupees per annum, amounts to a demonstration :—

|                  | Rupees.                 |
|------------------|-------------------------|
| In 1838-39.....  | 14,00,000               |
| In 1839-40.....  | 14,00,000               |
| In 1840-41.....  | 14,00,000               |
| In 1841-42.....  | 14,00,000               |
| In 1842-43.....  | 18,50,000               |
| In 1843-44.....  | 18,50,000               |
| <b>Total ...</b> | <b><u>93,00,000</u></b> |

**Average of the Six years... Rs. 15,50,000**

or the exact sum indicated by Mr. Plowden in the 114 paragraph of his Report.

26. From these facts, then, we become aware of a sudden and unnatural increase in the demand for the article of Salt during the two last years of the lower rate of Excise, during which a quantity of Salt represented by nine lacs of Rupees, that is maunds 18,00,000, over and above the average deliveries of any former two years, was carried away by the traders.

27. Such being the case, it was to be expected, naturally enough, that the Court of Directors would have been anxious to understand the cause of such a great and sudden increase in the Salt Revenue, but this does not appear from the Blue Book to have been the case. The Honorable Court, however, did not fail to instruct the Bombay Government to discover the causes of the falling off from the year 1843-44.

28. How the financial results of former years came to be entirely ignored, during the discussion that took place, as recorded in paragraphs 334 to 336 of the Blue Book, passes my comprehension.

29. It may be that Government and commercial bodies are like individuals when they are prosperous, they are too well satisfied with the fact to make any very minute or anxious inquiries into the causes of their prosperity.

30. Mr. Plowden's Report professes to be a history of the Salt Revenue, and although it was his obvious duty to investigate the matter as fully as possible, we find no mention of the facts detailed above; and if he was only groping in the dark instead of throwing light on the subject of inquiry, it was wholly due to his not taking a sufficiently enlarged view of the question, and by his making arbitrary comparisons of three years with other three years, instead of one natural series of years with another natural series.

31. We have now seen that, in the years 1842-43, 1843-44, the equilibrium of the Salt trade was violently disturbed, and that the prospective increase of the Salt Tax stimulated the ordinary foresight of the Salt merchants, and gave a sudden and extraordinary impetus to the trade, much in the same way as the prospect of a famine would do to the grain trade.

32. On the introduction of the higher rate of Excise, then, we are made aware of the fact that the bazars and store houses of the merchants contained no less than one million eight hundred thousand Indian maunds of surplus Salt, and a reaction was, therefore, the natural consequence of the former unprecedented demand, and that reaction was the cause of the falling off of the Salt Revenue in the following years.

33. Was it reasonable, let me ask, to expect its sudden restoration?—in other words, could it be hoped that the deliveries of Salt from the

works would rise to a fair average, until the great surplus *stored up*, in anticipation of the increased tax, had been gradually consumed? Certainly not.

34. It is to be borne in mind, that all this surplus was carried away for *internal* consumption for the very obvious reason, that it was only on *that* that any profit could have been realised. No corresponding disturbance, as we learn from Mr. Plowden's Appendix K, took place in the export trade to Bengal or Madras, where there was no room for speculation, allowance merely being made there for any amount of tax paid in Bombay, whether eight annas or twelve annas.

35. With so much extra stock on hand, we are now fully prepared, I think, for the announcement, that the demand afterwards fell considerably short of what it would have been but for this circumstance, and accordingly we learn from Mr. Plowden's Appendix K, so often referred to, that there was a very considerable deficiency in the deliveries of Salt, but for *internal consumption only* during the three following years 1844-45 to 1846-47; but let me here ask, was it caused by a decrease in the consumption or extensive smuggling, &c. as the Bombay Government were led to suppose? Certainly not,—the causes of that decrease, when thus explained, are patent to the most ordinary understanding. It was not caused even by the increase of the tax, as I shall presently proceed to show.

36. In pursuance of my explanation, then, it will be readily conceded, I think, that, like the arms of a balance, the two years of extraordinary receipts on account of Salt Tax are necessarily and indissolubly connected with the subsequent three years deficiency as cause and effect, and that the consumption of the great surplus of Salt was spread over these three years of deficiency, so as to reduce the sales during these three years.

37. This appears to me to be dealing fairly and justly with the subject, but Mr. Plowden, in his ignorance of the circumstances, has wholly disconnected them, so that it excites no surprise that he came to a wrong conclusion.

38. What would be thought of a Natural Philosopher who, with a view to the determination of the general level of the ocean, should calculate from the average of its highest tides only, and leave out the average of its lowest, instead of taking the mean of both?—but this is quite analogous to what Mr. Plowden has done in his Report and his Appendix K.

39. I shall, therefore, take the average of the five years alluded to for the purpose of showing that there are no grounds whatever for Mr. Plowden's opinion, as given in paragraph 344 of his Report, "that there has

been either a very considerable diminution in the actual *consumption* or a very considerable progressive increase in the illicit consumption."

40. The total deliveries and imports during these five years are as follows :—

|                  | Maunds.          |
|------------------|------------------|
| In 1842-43 ..... | 42,44,052        |
| In 1843-44 ..... | 41,87,132        |
| In 1844-45 ..... | 37,73,124        |
| In 1845-46 ..... | 38,98,519        |
| In 1846-47 ..... | 34,49,099        |
|                  | <hr/>            |
|                  | 5) 1,95,51,926   |
|                  | <hr/>            |
| Average....      | <u>39,10,385</u> |

41. The average annual quantity of Salt delivered from the Salt works during these five years thus appears to have been 39 lacs of maunds. We have already seen (paragraph 25) that the gross average annual receipts of the four antecedent years 1838-39 to 1841-42 were 14 lacs of Rupees, the quantities of Salt delivered, representing this sum, according to the best calculation it is in my power to make, are as follows :—

|   | Maunds.          | Corresponding Receipts.               |
|---|------------------|---------------------------------------|
| For internal consumption, at Eight Annas.....                   | 22,70,119        | } at Eight Annas .. Rs. 13,73,235     |
| Exports to Calcutta, at Eight Annas. ....                       | 4,76,351         |                                       |
| Exports to British Ports, Madras Presidency, at Three Pies..... | 5,25,000         | at Three Pies .... Rs. 8,203          |
| To Foreign Ports, and beyond India, at One Anna .....           | 2,97,000         | at One Anna .... Rs. 18,562           |
|   | <hr/>            | <hr/>                                 |
| Total Maunds ...  | <u>35,68,470</u> | Total Receipts . Rs. <u>14,00,000</u> |

42. Now I would beg every one who takes the trouble to follow me through this calculation to compare the results of these two natural periods, the first of four years 1838-39 to 1841-42 with the second of five years 1842-43 to 1846-47, and, I think, he will be satisfied, that even in spite of an increase in the tax of 50 per cent. additional, during the three last years of the second period, that the second period exhibits an immense improvement upon the first, being no less than an increase in the sales to the extent of  $3\frac{1}{2}$  lacs of Indian maunds.

43. What becomes now of Mr. Plowden's statement in paragraph 344 of his Report, that "there has either been a very considerable diminution in the actual consumption of Salt, or a very considerable increase in the illicit consumption"? Such an opinion is utterly untenable.



44. It is scarcely necessary to show the comparative financial results of these periods, because, from the statements of the quantities of Salt sold, it will be readily anticipated that the revenue also (setting entirely aside the 50 per cent. increase of tax) materially improved, but it is here submitted for the sake of completeness, as follows :—

Average of three years 1844-45 to 1846-47, taken from Appendix K. of Mr. Plowden's Report :—

|   | Maunds.   |                            |           |
|---|-----------|----------------------------|-----------|
| Foreign Imports .....                                   | 1,73,857  | } Amount of duty .. Rs.    | 22,51,190 |
| Carried away for interior consumption .....             | 23,55,454 |                            |           |
| Export to Calcutta .....                                | 4,72,276  |                            |           |
| Total, at 12 Annas .                                    | 30,01,587 |                            |           |
| To British Ports, Madras Presidency,<br>at 1 Anna ..... | 5,42,285  | Amount of duty .. Rs.      | 8,473     |
| To Foreign Ports, Madras Presidency,<br>at 1 Anna ..... | 3,22,401  | Amount of duty .. Rs.      | 20,150    |
| Beyond India, at 1 Anna .....                           | 14,493    | Amount of duty .. Rs.      | 906       |
| Total Maunds. . . . .                                   | 38,80,769 | Total average Receipts Rs. | 22,80,719 |

45. To make a fair comparison with the average Salt Revenue for the period 1838-39 to 1841-42, one third, or 50 per cent. of the realisations at 12 annas per maund must be deducted from the above, leaving 15,00,794, which, added to the sums received on exported Salt, makes a total of Rs. 15,30,323. Adding to this the average of the two years 1842-43 and 1843-44, which, by paragraph 24, we have seen to be Rs. 18,59,074, and taking the mean of both, we have an average revenue of the five years 1842-43 to 1846-47 of no less than Rs. 16,94,698, or *nearly 17 lacs of Rupees*, even after deducting the additional duty of 4 annas received on all deliveries in the three years from 1844-45 to 1846-47.

46. Let this be compared now with the 14 lacs of gross annual receipts from 1837-38 to 1841-42, and it will be conceded, I think, that neither the Honorable the Court of Directors, nor the Bombay Government, had the least cause for the anxiety or disappointment which they evinced on this subject, as we learn from paragraphs 334 to 337 of Mr. Plowden's Report.

47. Mr. Plowden states in paragraph 443 of his Report, that "the deliveries of Salt have declined during the ten years succeeding 1843-44; that the population must have progressively increased, and, that while the tax has been raised 50 per cent., the increase in the revenue has increased only 33 per cent."

48. Now the whole of these opinions are vitiated by Mr. Plowden's mistake in supposing the Salt deliveries of the year 1843-44 to represent the ordinary demand for that article, regulated by the general annual consumption, it has been satisfactorily demonstrated that such was not the case, but, from his having started upon this false key note, the whole of his arguments are consequently out of tune.

49. In estimating the effects of the increased rate of tax on the consumption, which is a different inquiry, we have really nothing but the results of the years 1838-39 to 1841-42, with which the subsequent results of the enhanced rate can be fairly and justly compared, and, in following out this inquiry, the period of disturbance, caused by speculation and three different rates of Excise, should be omitted, the year 1847-48, being the first year at 12 annas rate in which the consumption by the population was faithfully represented by the sales for *internal* consumption.

50. In studying the effect of the increased rate of tax on the consumption, it is necessary to throw out of the calculation all the Salt exported to Calcutta, Madras, and where the price is not altered to the consumer, by any rise or fall in Bombay, and to confine our attention to that sold or imported for interior consumption.

51. On an inspection of Appendix K of Mr. Plowden's report, we find two averages, of three years each, given of the deliveries for interior consumption during six years from 1847-48 to 1852-53, one of maunds 27,43,203, the other maunds 27,35,866, regarding which the only remark which suggests itself is, that they come very near to each other, and prove a remarkable steadiness and uniformity in the demand, and consequently, in the consumption of the article.

52. These two averages by the addition of those of foreign imports are raised respectively to 28,95,880 maunds and 28,64,952 maunds, the mean of these being maunds 28,80,416, which amount may be safely and confidently put down as the mean annual consumption in the interior, during the period in question.

53. We have now, therefore, three averages of deliveries of Salt as follows :—

|              |   |                     |        |           |
|--------------|---|---------------------|--------|-----------|
| 1838-39..... | } | Annual average..... | Maunds | 22,70,119 |
| 1839-40..... |   |                     |        |           |
| 1840-41..... |   |                     |        |           |
| 1841-42..... |   |                     |        |           |
| 1842-43..... | } | Annual average..... | Maunds | 28,59,263 |
| 1843-44..... |   |                     |        |           |
| 1844-45..... |   |                     |        |           |
| 1845-46..... |   |                     |        |           |
| 1846-47..... | } |                     |        |           |
|              |   |                     |        |           |

|         |       |  |
|---------|-------|--|
| 1847-48 | ....  | } Annual average..... Maunds 28,80,416 |
| 1848-49 | .. .. |  |
| 1849-50 | ....  |  |
| 1850-51 | ....  |  |
| 1851-52 | .. .. |  |
| 1852-53 | .. .. |  |

54. The gross annual average revenue of these three periods are as follows:—

|                              |               |
|------------------------------|---------------|
| 1838-39 to 1841-42.....      | Rs. 14,00,000 |
| 1842-13 to 1846-47 ... ..    | „ 20,69,896   |
| 1847-48 to 1852-53 . . . . . | „ 25,22,520   |

which are calculated entirely from the figured statements furnished by Mr. Plowden.

55. Having now shown that there has been a natural and progressive development, not only of the revenue derived from the Salt Tax, but also of the consumption of the article by the population, I shall leave the reader to judge for himself of the value of Mr. Plowden's statement in paragraph 443 of his Report, that while the tax on Salt has been raised 50 per cent, the increase in the revenue has amounted to less than 33 per cent.!!

56. Fourteen lacs, we have seen (paragraph 41), was the average annual revenue at eight annas per maund, when there were no disturbing causes, upwards of 25 lacs has been the average revenue of the last six years under review, under the same absence of disturbing causes, amounting to no less than 80 *per cent.* of increase.

57. Before concluding, I may advert to a general impression which seems to prevail both with the Honorable the Court of Directors (*vide* paragraph 11), and with certain local officers whose names are not given (paragraph 443), and also with Mr. Plowden himself (*vide* paragraph 446), that a reduction in the Excise would lead to an increased consumption of Salt, and that individual consumption is economised on account of the increase of the tax, and this has also been stated in the House of Commons.

58. I have reason to think this a pure fallacy; such might be the cause with luxuries, but scarcely with necessities: a man requires a certain quantity of Salt with his food, and that quantity he must and will have, and he would not consume more if he had it for nothing. Indeed, the idea of a Native spoiling his meals because Salt was cheap, is, in the highest degree, improbable, to say the least of it.

59. The Salt Tax on this side of India resolves itself into a national burden of eighteen ples or nine farthings per man, and the idea of economising, in consequence of this annual outlay, is only calculated to raise a smile. •



*Diagram of Salt Deliveries from the Bombay Works, and of Imported Salt for Interior Consumption, from 1838-39 to 1852-53.*

| A                               |         | B                       |         |
|---------------------------------|---------|-------------------------|---------|
| 1858-59                         | 1859-60 | 1860-61                 | 1861-62 |
| 1861-62                         | 1862-63 | 1863-64                 | 1864-65 |
| 1865-66                         | 1866-67 | 1867-68                 | 1868-69 |
| 1869-70                         | 1870-71 | 1871-72                 | 1872-73 |
| Average Indian Maunds 22,70,000 |         | 37,41,000 Indian Maunds |         |

60. I have now finished my task, and I trust that it will be considered I have done it impartially, and as actuated solely by a love of truth, and of fair play to the department in which I have had the honour to serve for the last fifteen years.

61. I will do Mr. Plowden the justice to say, that he has told *part* of the history of the Bombay Salt Revenue accurately, but he has, as we have seen, omitted certain features in its history, which, when inserted, have altered, contradicted and neutralised the results to which he wished to lead us.

62. These results, as now detailed, ought to satisfy the Court of Directors and the Bombay Government as to the past, while they are full of encouragement for the future; fully demonstrating, as they do, that the increase of the tax on Salt has not, in the slightest degree, injuriously affected its consumption by the population on this side of India, and that to revert to the old rate of eight annas would be to relinquish voluntarily no less than seven lacs and twenty thousand Rupees of annual revenue, without the slightest prospect of increasing the consumption of the article.

The annexed Diagram is accurately drawn to scale; the horizontal distances representing the different years, and the vertical heights the amount of Salt deliveries.

During the first four years an average only is given. In the fifth and sixth, and also in the tenth year, some disturbing cause evidently affected the trade, but it is a singular fact, that, by drawing the red line AB., which represents the correct average, the excess of the fifth and sixth, as nearly as possible, balances the apparent deficit of the three succeeding years; and that of the tenth the deficit of the three years which follow it.

As any increase can have no connection with preceding years, it must, of necessity, be taken into the calculation of the averages of those following, and the above Diagram is conclusive evidence of this.

So far from there having been a diminution in the consumption, the average appears to have suddenly risen, and the consumption increased about 14 per cent.

This appears to have been caused by the traders having large stocks on hand, which obliged them, for a time, to force a trade, and be satisfied with moderate profits.

This is not a forced view of the case; for, by the extension of the trade to new localities, an increase in the general consumption might be expected, and, when once established, there is little chance of decrease.

N. A. DALZELL.

No. 2585 of 1858.

TERRITORIAL DEPARTMENT,  
REVENUE.

*Dated Bombay Castle, 2nd August 1858.*

To the ACTING COMMISSIONER of CUSTOMS, SALT, and OPIUM

*Copy of the Resolution passed by Government on a paper submitted by Mr. Dalzell, Assistant Commissioner of Customs, Salt, and Opium, on the subject of Mr. Plowden's Salt Report.*

Mr. Plowden, in the 446th paragraph of his Salt Report, while stating that he acquiesced in the decision arrived at by the Bombay Government that it was not advisable, in a financial view, to revert from the existing enhanced rate of excise duty on Salt (fixed at twelve (12) annas) to the former rate of eight (8) annas per Indian maund, clearly indicates that he also concurred in the conclusion at which the Honorable the Court of Directors and this Government had arrived; that the deliveries of Salt from the Salt Pans had materially declined since the introduction of the enhanced rate of duty, and infers from this supposed decline, either a decreased consumption of Salt, or increased illicit supply. He further states "that unless the revenue exhibit a marked improvement, it will be necessary to reduce the tax on Salt to the old rate of eight annas per Indian maund."

2 With reference to these views of the Honorable Court, of this Government, and of Mr. Plowden, Mr. Dalzell now solicits permission to publish a brochure, in which he shows that there has, in reality, been no decline whatever in the deliveries of Salt, and, therefore, that there are no grounds to believe either that consumption has decreased, or smuggling increased.

3. Mr. Dalzell appears to Government to have satisfactorily established his position. His reasoning may be briefly summed up as follows:—

4. The inference that a decline in the deliveries of Salt had occurred was arrived at by the Honorable the Court of Directors in 1847, and was based on the fact that, whereas in the years 1842-43 and 1843-44 (being the two last years in which the excise was assessed at eight (8) annas per maund), the deliveries averaged 29,66,215 maunds; the average for the next three years amounted only to 23,55,450 maunds.

5. Mr. Dalzell points out that the deliveries, during the two years 1842-43 and 1843-44, were greatly in excess of the average of the years immediately preceding. He shows that while the realisations from

excise duty, during the years above cited, averaged about Rupees eighteen lacs and fifty thousand (18,50,000) ; the realisations during the three years preceding averaged only about Rupees fourteen lacs (14,00,000). The average of the whole six years from the first introduction of the Salt Excise in the year 1838-39 to the time of its enhancement from eight (8) to twelve (12) annas per maund in 1844-45 was about Rupees fifteen lacs and fifty thousand (15,50,000).

6. Mr. Dalzell states that the sudden increase in 1842-43 and 1843-44 was owing to the prevalence of a rumour that the rate of Salt Excise was about to be increased. It is notorious that such a rumour was in circulation at the period, and it is obvious that it would naturally lead dealers to anticipate the operation of the tax by accumulating as much Salt in their stores as possible, before the new tax was imposed.

7. The increased run on the Salt Pans must necessarily have been followed by a reaction so soon as the enhanced duty was imposed, and it is clear that admitting a large surplus stock to have been in the dealers' hands, falling off in deliveries would not necessarily indicate a falling off in consumption or an increase of smuggling. It cannot be denied that there was such a falling off, but if the total deliveries of five years, embracing the two years of extraordinary demand previous to the enhancement of the duty, and the three of decline which succeeded that event, be taken, it will be found that the average of those five years considerably exceeds the average deliveries of the years preceding those in which the expected increase of duty disturbed and increased the natural demand.

8. The following approximate result is stated in Mr. Dalzell's 53rd paragraph:—

| Average deliveries for consumption in the   | Maunds.   |
|---|-----------|
| Interior from 1838-39 to 1841-42 .....      | 22,70,119 |
| 1842-43 to 1846-47 .....                    | 28,59,263 |
| 1847-48 to 1852-53 .....                    | 28,80,116 |
| To the above averages may be added,         |           |
| that for the years 1853-54 to 1855-56 ..... | 28,56,189 |

9. It is evident, from the above statement, that there has been a considerable increase in the deliveries since the introduction of the enhanced duty, and it follows that the fears, which originated from a comparison of the realisations of 1842-43 and 1843-44 with those of 1844-45, 1845-46 and 1846-47 were groundless.

10. Mr. Plowden, however—he may have been misled on this particular point—did not, it will be observed, incautiously advocate an immediate reversion to the old rate of duty. He merely suggested that it might be advisable to revert to that duty if no improvement were



observable in future; but the future to which he looked has clearly proved that no such reversion is called for.

11. It is not clear why Mr. Dalzell did not forward his observations through the Head of the Department in which he is an Assistant. It might have been better had Government had an opportunity of learning the opinion of the Commissioner of Customs, Salt, and Opium, on the point to which Mr. Dalzell's criticisms relate, and His Lordship in Council is of opinion that, instead of permitting Mr. Dalzell to publish his remarks by themselves, it will be expedient to forward them for the remarks of the Commissioner of Customs, Salt, and Opium, and to publish the whole as a selection from the Government records.

12. The Commissioner should complete the Statement given in paragraph 8 of this Resolution up to the present date.

H. YOUNG,  
Chief Secretary to Government

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No. 1789 or 1858.

TERRITORIAL DEPARTMENT,  
REVENUE.

From RICHARD SPOONER, Esq.,  
Commissioner of Customs, Salt, and Opium.

To HENRY YOUNG, Esq.,  
Chief Secretary to Government.

*Bombay, Office of Commissioner of Customs,  
Salt, and Opium, 20th October 1858.*

SIR,

Mr N. A. Dalzell's comments on Mr. Plowden's Salt Report.

I have the honour to acknowledge the receipt of Government Resolution, No. 2585, dated the 2nd August last, on the subject noted in the margin.

2. Mr. Dalzell's report has already been so carefully reviewed by Government as to leave me but little to add on the subject.

3. I am directed, however, to complete the statement given in paragraph 8 of the Resolution.

4. The information which Government require is evidently simply this, viz what has been the result of the Salt Excise Duty of 8 Annas as per Act XXVII. of 1837, and of the 12 Anna Duty as per Act XVI. of 1844 respectively.

5. I beg, therefore, to transmit a Diagram marked A of Salt deliveries for interior consumption, prepared according to Mr. Plowden's form, page 59, paragraph 342 of his Salt Report.

6. By the words "Salt deliveries for interior consumption" is meant :

1st.—Salt carried by sea from the Salt Works to British Ports in the Bombay Presidency,

2nd.—All Salt carried by land ;

And it does *not* include Salt exported from the Bombay Presidency.

1st.—To Calcutta by sea.

2nd.—To the Madras Presidency by sea.

3rd.—To places beyond the Continent of India by sea.

7. For the years 1837-38 and 1838-39 no very correct information is procurable, and hence, therefore, those years should be excluded from our calculation.

8. For the next five years until the close of the Eight Anna Duty, the average quantity of Salt taken for interior consumption was Indian maunds 28,85,210 per year.

| Years.        | Indian Maunds. |
|---------------|----------------|
| 1839-40 ..... | 26,97,651      |
| 1840-41 ..... | 28,29,210      |
| 1841-42 ..... | 29,66,758      |
| 1842-43 ..... | 29,18,406      |
| 1843-44 ..... | 30,14,025      |
|               | 1,44,26,050    |
| Average....   | 28,85,210      |

9. For the first three years of the 12 Anna Duty, the average quantity of Salt taken for interior consumption was Indian maunds 23,55,454 per year.

| Years.        | Indian Maunds. |
|---------------|----------------|
| 1844-45 ..... | 24,15,016      |
| 1845-46 ..... | 24,94,170      |
| 1846-47 ..... | 21,57,177      |
|               | 70,66,363      |
| Average....   | 23,55,454      |

10. I have taken three years, because, as very justly remarked by Mr. Dalzell, there was probably an *excess* of Salt taken in the years (say three years) immediately preceding the raising of the duty from eight annas to 12 annas, and also there was a corresponding decrease in, say the three years immediately following the introduction of the 12 Anna Duty.

11. The average of the total period from 1839-40 to 1846-47, viz. five years of the Eight Anna Duty, and the first three years of the 12 Anna Duty, gives an average of Indian maunds 26,86,552 per year.

| Years             | Indian Maunds. |
|-------------------|----------------|
| 1839-40 . . . . . | 26,97,651      |
| 1840-41 . . . . . | 28,29,210      |
| 1841-42 . . . . . | 29,66,753      |
| 1842-43 . . . . . | 29,18,406      |
| 1843-44 . . . . . | 30,14,025      |
| 1844-45 . . . . . | 24,15,016      |
| 1845-46 . . . . . | 24,91,170      |
| 1846-47 . . . . . | 21,57,177      |
|                   | 2,14,92,413    |
| Average . .       | 26,86,552      |

12. For the next six years, viz. up to 1852-53, being the last year mentioned by Mr. Plowden, the average is Indian maunds 27,39,535 per year.

| Years.            | Indian Maunds. |
|-------------------|----------------|
| 1847-48 . . . . . | 29,99,063      |
| 1848-49 . . . . . | 25,86,981      |
| 1849-50 . . . . . | 26,43,564      |
| 1850-51 . . . . . | 25,87,262      |
| 1851-52 . . . . . | 27,63,463      |
| 1852-53 . . . . . | 28,56,873      |
|                   | 1,64,37,209    |
| Average . .       | 27,39,535      |

13. To the above, I have added, as required in paragraph 8 of the Government Resolution under reference, the years subsequent, viz. 1853-54 to 1857-58, and which gives an average of Indian maunds 29,12,263 per year,

| Years.            | Indian Maunds. |
|-------------------|----------------|
| 1853-54 . . . . . | 27,58,974      |
| 1854-55 . . . . . | 26,15,228      |
| 1855-56 . . . . . | 31,90,233      |
| 1856-57 . . . . . | 29,99,613      |
| 1857-58 . . . . . | 29,97,266      |
|                   | 1,45,61,314    |
| Average . . .     | 29,12,263      |

14. It will be observed, that the average of the eight years 1839-40 and 1846-47, as nearly as possible, corresponds with the average for the next six years 1847-48 and 1852-53; while the average of the subsequent five years 1853-54 and 1857-58 shows an increase of about two lacs of Indian maunds per year, or say an increase of six per cent. over the previous average.

15. I shall purposely refrain from entering into any long detail in regard to the calculations made by Mr. N. A. Dalzell, as many of them are framed from mere assumptions and inferences, while my statement is framed from actual transactions, except for the years 1842-43 and 1852-53, where I have quoted Mr. Plowden's figures, as they very nearly correspond with the actual transactions, and, consequently, there is no necessity for disturbing what has already been recorded by him.

16. And I will only conclude by remarking, with reference to paragraph 446 of Mr. Plowden's Report, page 80, that the revenue collections are, on the whole, satisfactory; that there is nothing to show that the increased Excise of 12 annas has diminished the consumption of Salt by the population, and that, therefore, there is no necessity whatever, at the present at least, to reduce the Excise to the old rate of eight annas.

17. I beg to annex a Statement marked B, showing the total revenue realised on Salt removed for interior consumption, and also on Salt exported to the Madras Presidency and Calcutta from 1839-40 and 1857-58, from which it is to be observed that for the first period of five years, viz. 1839-40 to 1843-44 during the Eight Anna Duty, the average annual collections amounted to Rs. 15,86,125, and for the subsequent periods the realisations were as follows:—

Second period of five years from 1844-45 to 1848-49 . . . Rs. 22,37,153  
 Third period of five years from 1849-50 to 1853-54 . . . „ 23,86,596  
 Fourth period of four years from 1854-55 to 1857-58 . . . „ 26,27,639

I have the honour to be, &c.

RICHARD SPOONER,  
 Commissioner of Customs, Salt, and Opium.

**B.**

**STATEMENT showing the total Salt Excise Revenue from  
1839-40 to 1857-58.**

| Years.  | Revenue on<br>Salt export-<br>ed to<br>Malabar. | Revenue on<br>Salt exported<br>to Calcutta. | Revenue on Salt<br>removed for con-<br>sumption in the<br>Interior. | Total Revenue. | Remarks.                  |
|---------|---|---|---|----------------|---------------------------|
| 1       | 2   | 3   | 4   | 5              | 6                         |
|         | Rupees.   | Rupees.                                     | Rupees.   | Rupees.        |                           |
| 1839-40 | 17,114  | 71,493                                      | 13,47,354   | 14,35,961      | Average.<br>Rs. 15,86,125 |
| 1840-41 | 20,118  | 44,242                                      | 14,04,370   | 14,68,730      |                           |
| 1841-42 | 23,826  | 29,890                                      | 14,73,565   | 15,27,281      |                           |
| 1842-43 | 34,895  | 1,99,520                                    | 14,65,832   | 17,00,247      |                           |
| 1843-44 | 17,924  | 2,80,905                                    | 14,99,575   | 17,98,404      |                           |
| 1844-45 | 24,372  | 3,81,689                                    | 17,26,200   | 21,32,261      | Ditto.<br>Rs. 22,37,153   |
| 1845-46 | 40,784  | 3,40,248                                    | 18,60,195   | 22,41,227      |                           |
| 1846-47 | 31,488  | 3,00,188                                    | 16,13,665   | 19,45,341      |                           |
| 1847-48 | 34,701  | 3,26,946                                    | 22,40,511   | 26,02,158      |                           |
| 1848-49 | 27,771  | 3,06,330                                    | 19,30,677   | 22,64,778      |                           |
| 1849-50 | 32,052  | 3,87,588                                    | 19,42,740   | 23,62,380      | Ditto.<br>Rs. 23,86,596   |
| 1850-51 | 37,697  | 3,61,056                                    | 19,24,276   | 23,23,029      |                           |
| 1851-52 | 24,765  | 3,08,353                                    | 20,69,774   | 24,02,892      |                           |
| 1852-53 | 35,678  | 3,05,022                                    | 21,24,871   | 24,65,571      |                           |
| 1853-54 | 46,093  | 2,84,712                                    | 20,48,301   | 23,79,106      |                           |
| 1854-55 | 34,586  | 4,35,953                                    | 19,34,455   | 24,04,994      | Ditto.<br>Rs. 26,27,639   |
| 1855-56 | 30,775  | 3,44,243                                    | 23,72,771   | 27,47,789      |                           |
| 1856-57 | 29,004  | 2,89,062                                    | 22,22,928   | 25,40,994      |                           |
| 1857-58 | 38,444  | 5,74,308                                    | 22,04,025   | 28,16,777      |                           |

**RICHARD SPOONER,**  
Commissioner of Customs, Salt, and Opium

*Bombay, Office of Commissioner of Customs,  
Salt, and Opium, 20th October 1858.*

RESOLUTION OF GOVERNMENT ON THE  
FOREGOING LETTER.

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No. 3841 OF 1858.

TERRITORIAL DEPARTMENT,  
REVENUE.

*Dated Bombay Castle, 22nd November 1858.*

To the COMMISSIONER of CUSTOMS, SALT, and OPIUM.

*Copy of the Resolution passed by Government on the foregoing Letter.*

The following papers to be printed as a part of the Revenue Selections of this Presidency :—

Mr. Dalzell's Review of Mr. Plowden's Report.

Government Resolution No. 2585, dated 2nd August 1858.

Report by the Commissioner of Customs, Salt, and Opium, dated 20th October 1858, No. 1789, and the usual number of copies furnished to the Home Authorities, with a letter from this Government.

2. The Commissioner of Customs, Salt, and Opium to be requested to furnish Mr. Dalzell with a copy of the correspondence which has taken place on the subject of his review.

B. H. ELLIS,  
Acting Secretary to Government.









